UNIVERSITY OF ALBERTA

LIBRARY SERVICE QUALITY:
AN UNOBTRUSIVE INVESTIGATION OF INTERLIBRARY LOAN SERVICE IN LARGE CANADIAN ACADEMIC LIBRARIES

BY

LORI ANNE VAN ROOIJEN ©

A THESIS

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ENTITLED: **LIBRARY SERVICE QUALITY: AN UNOBTRUSIVE INVESTIGATION OF INTERLIBRARY LOAN SERVICE IN LARGE CANADIAN ACADEMIC LIBRARIES**

SUBMITTED BY: **LORI ANNE VAN ROOIJEN**

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF LIBRARY AND INFORMATION STUDIES

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Abstract

The quality of interlibrary loan service provided by large Canadian academic libraries was investigated from the perspective of both the libraries and their clients. Grounded in the gaps model or disconfirmation theory, the study used a modified version of the SERVQUAL instrument developed in the private sector over the last 10 years. The study unobtrusively investigated the characteristics of 54 interlibrary loan transactions initiated by proxy clients in 15 academic libraries across Canada. Traditional institutional measures of interlibrary loan service quality produced a fill rate of 82 per cent and a turnaround time of 13 calendar days. More recently devised measures of service quality from the perspective of the client showed that initial expectations of quality were higher than the perceptions of the service that clients actually experienced. Reliability, the dimension ranked most important by clients, was rated the lowest in actual performance whereas tangibles, the dimension ranked least important by clients, scored the highest. The study showed incongruence between traditional measures of service quality used in academic libraries, fill rate and turnaround time, and more client-centred outcome measures of service quality.

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Chapter I

Introduction

Measurement and Evaluation of Quality in Libraries

The purpose of this study was to compare traditional library-based measures of interlibrary loan performance (objective quality) with client-based outcome measures of interlibrary loan performance service (perceived quality) to determine if the two sets of measures are congruent. At the outset of this study, it is important to have an understanding of the traditional means used for evaluating the quality of services within academic libraries. Knowledge of traditional measures will help clarify how more recent models for measuring service quality can assist in defining and applying more broad-based quality measures. It is also important to understand the external factors affecting the provision of service within academic libraries in Canada because these factors have an impact on the extent and quality programs and services.

The measurement of overall quality of an academic library is still largely based on the size of the library's collection and on numerous statistics surrounding its circulation (Hernon and McClure 1990; Van House et al. 1990; Nitecki 1996). This is equally true of the measurement of quality of interlibrary loan performance which focuses on criteria such as fill rate and turnaround times (Waldhart 1985). Traditional measures of quality are based on the perspective of the library management and focused on objective aspects of that service. These measures are tangible and grounded in characteristics that are easily measured such as fill rates (objective quality). However, to view the provision of services exclusively from an organizational perspective "merely as how well a service or activity is done" (McClure and Lopata 1996, 6) is problematic as it provides only one side of the picture.

What may be a positive trend within the library field is an increasing incorporation of new measures of quality within library settings, measures that are outcome and benefit oriented (Van

House 1989; Hernon and McClure 1990; Nitecki 1996; D'Elia and Rodger 1996). One of the primary focuses for these measures has been in the area of client satisfaction (Van House et al. 1990; Van House and Childers 1993; Hernon and Schwartz 1996; D'Elia and Rodger 1996). The degree to which the library's clients are satisfied is taken to be an indication of how well the library serves its clients (Nitecki 1996; D'Elia and Rodger 1996).

Measures of satisfaction within the library and information studies field, however, have focused largely on global measures of satisfaction by asking clients such questions as "how did we do today" (Van House et al. 1990; D'Elia and Rodger 1996). The extent to which these types of questions help improve the quality of individual services within the institution is now under review. It has become increasingly clear that client satisfaction is a subjective concept. Satisfaction is largely a point of view that is directly related to a client's experience during their visit to a library (De Prospo et al. 1980; D'Elia and Walsh 1994; D'Elia and Rodgers 1994; Hébert 1994; White and Abels 1995; D'Elia and Rodgers 1996; Nitecki 1996). Capturing the "essence of satisfaction" from the client's perspective has been difficult for library and information studies researchers (Dewdney and Ross 1994; Hernon and Schwartz 1996).

There are many who have argued against the use of subjective measures of service performance "suggesting that clients are not competent to render a valid evaluation of the library" (Bicknell 1994, 78; see also D'Elia and Walsh 1983). In fact, few studies have defined or identified the various components of satisfaction with library service. Even more rare are studies that attempt to define satisfaction with interlibrary loan service. The problem thus far has been how to solicit feedback from clients and how to measure satisfaction from the perspective of the client in ways that will also produce valid and reliable results.

There is, however, a larger body of literature outside of the library and information studies field that has looked specifically at satisfaction and the attributes that surround this construct (Fisk et al. 1993). Over a period of many years, researchers in the service marketing field have discovered a number of factors that are important to measuring client satisfaction. But perhaps the greatest contribution has been in the introduction of a new concept that is related to but different from satisfaction, the concept of service quality. The service marketing research discusses in great detail the interactions between satisfaction and service quality and provides a possible solution to the dilemma presented in libraries as how best to measure the performance of a specific service from the perspective of the client.

The marketing literature makes a distinction between satisfaction and service quality. Although both are considered subjective concepts and are measured from the client's perspective, they are very different outcome measures. Satisfaction examines "a specific transaction, perceived value and customer preference" (Elliot 1994, 33) whereas service quality is more of a global judgment, an evaluation based on a number of normative standards and one based on specific long-term attitudes towards service (Parasuraman et al. 1985). While the interactions between the two constructs are not clearly understood, it is likely that service quality is an antecedent of client satisfaction. In other words, higher levels of service quality result in an overall increased level of client satisfaction (Elliot 1994).

The focus of the marketing literature now has been on the study of service quality as a way to understand client satisfaction. That research suggests that the measurement of service quality from the perspective of the client is likely the most important outcome measure upon which to evaluate services (Parasuraman et al. 1985, 1988; Zeithaml et al. 1985; Zeithaml 1990; Berry et al. 1990; Spreng et al. 1996). Service quality is conceptualized as a client's judgment about an entity's overall excellence and superiority and is referred to in the literature as perceived quality. Perceived quality is distinguished from objective quality which is conceptualized as the functional aspects of a service, and it is characterized as being the result of the client's comparison of expectations of performance with the client's perceptions of actual performance (Parasuraman et al. 1988).

Over the last five years, researchers have conceptualized a framework for service quality (the Gaps Model of Service Quality) and developed a valid and reliable instrument to measure service quality called SERVQUAL. The instrument is designed to measure service quality from the perspective of the client by assessing what the client feels is important. It is based on a number of dimensions of service that represent the evaluative criteria that clients use to assess service quality. The primary measure of the instrument is a difference score, an accepted measure of subjective experiences used consistently within the marketing field. SERVQUAL has been used in over 250 studies, mostly of service-based business but there have also been a few instances of its use within the public sector including three in libraries (Hébert 1994; Edwards and Browne 1995; Nitecki 1996).

The expectations of clients and the role that these expectations play in the evaluation of service quality and client satisfaction has become increasingly important in the search for new outcome measures in libraries (Orr 1973; Van House 1989; Hernon and McClure 1990; Childers and Van House 1993; Shaughnessy 1995). The literature shows a large number of reference service studies on the measurement of client satisfaction (Crews 1988; Durrance 1989; D'Elia and Rodgers 1996; Sandore 1996). There are also an increasing number of studies being reported that have used outcome measures of performance such as client expectations to assess the quality of and satisfaction with services provided by library institutions (Hébert 1994; Dewdney and Ross 1994; Edwards and Browne 1995; Perrault and Arseneau 1995; Nitecki 1996). In fact, three of these studies used the SERVQUAL instrument to measure service quality from the perspective of the clients using the service.

These recent library studies concur with those in the marketing literature and suggest that high levels of client satisfaction are dependent upon client experiences at the library, that is, a good experience results in higher levels of satisfaction (Hébert 1994; White and Abels 1995; Nitecki 1996; Quinn 1997). Clients of libraries also seem to measure their satisfaction by comparing their expectations with their perceptions of the performance of that service (Quinn 1997; Nitecki 1996; Hébert 1994; Arseneau and Perrault 1995; D'Elia and Rodgers 1996). In fact, high levels of satisfaction with library service have been specifically linked with an expectations that a library's collection will fulfill the information needs of clients and that the provision of service that facilitates that access to information will be excellent (D'Elia and Rodgers 1996, 1994).

Although the use of outcome measures in the evaluation of library services is not new, the relationships between outcome measures and performance measures have not been explored to a great extent within the library and information studies literature (Hernon and McClure 1990; Hernon and Schwartz 1996). Quality assessments are not made entirely on the outcome of a service, for example, receipt of the item or accurate answers to reference questions. Quality evaluations also involve assessments of the process for service delivery, for example, staff friendliness, inviting atmosphere and so on (Nitecki 1996; D'Elia and Rodgers 1996, 1994).

Fundamental questions about quality are continually being asked within the field. Such questions as:

- whose perspectives can best judge the quality of a service,
- whether outcome measures used in the business environment can be adapted for use in public organizations such as academic libraries, or
- whether the traditional measures used in libraries are sufficient to measure the quality of performance (Quinn 1997).

The limitations of performance measures, as well as their relationship to outcome measures such as perceived quality, must be clearly understood if outcome measures are to be truly beneficial to improving the management of libraries (Hernon and Schwartz 1996).

In addition to the fact that appropriate quality measures are required in order to assess client satisfaction with library service, there are also numerous economic, social and political factors facing academic libraries that will have an impact on access and the provision of excellent service. These external pressures make appropriate quality measures even more imperative as the Internet and private information providers are increasing the expectations of library service and as budgets for collections are being drastically reduced. The following section will discuss the implications of these factors on modern library institutions.

From Acquisition to Access

The phrase "from acquisition to access" has been used increasingly in the late 1980's and early 1990's to illustrate the way in which librarians in all sectors have dealt with budget cuts and the explosion of published materials (Jackson 1989, p vii). The increase in both the cost of information and the amount available has made it impossible for any library collection to serve all of the information needs of its clients. Over 600,000 books are published in the world every year, 108,000 print journals are available by subscription, and the electronic information base continues to grow by leaps and bounds, doubling in some areas every 12-18 months (ARL 1994). The costs of serial publications have reached an all time high, increasing by an average of 72 percent since 1986.

At the same time, acquisition budgets are also decreasing substantially. Recent statistics published by the Association of Research Libraries (ARL) indicate a major decline in the purchase of both monographs and serials since 1986 (ARL 1994). In fact, the greatest decrease was seen in monograph purchases, which fell 23 percent below 1986 levels. The Association has attributed this decrease directly to the budget cuts experienced by libraries (ARL 1994). All of this has forced librarians to recognize that the concept of local self-sufficiency is an ideal that can no longer be attained "by even the most well supported library" (Waldhart 1985, 210).

These opposing trends have had a dramatic impact on academic libraries, and continuing to meet the information needs of their clients has become a major challenge. Libraries not only have an obligation to provide materials to meet the needs of a client when local collections can not meet those needs but it is apparent that they are also being evaluated on their ability to provide access to the needed information. Academic libraries are looking for new strategies to provide information access and services to their clients that are cost effective and that will maintain the levels of service traditionally associated with academic libraries.

Applications of technology are making it possible to provide greater access to larger numbers of collections, both physical and electronic. The use of full text electronic formats (electronic serials) is a strategy that is becoming more prevalent as libraries struggle to meet the access challenge. However, it is increasingly clear that electronic access is very expensive that the issues of ownership and copyright become complex in the electronic environment. Recent studies in the provision of electronic access to clients are showing that in fact full-text is not meeting the information needs of the client (Gusack and Lynch 1995; Lynch 1995; Hunter 1996; see Mostert 1995 for a description of the TULIP project). Many libraries are not ready for digital collections nor will they be in the near future. Clients will only move toward electronic publications when they find the content they need available in sufficient quantity (Hunter 1996).

The building of consortiums that allow clients to borrow between local libraries and the use of interlibrary loan and document delivery services is more and more prevalent in libraries. Nowhere is the use of interlibrary loan service more apparent than in academic libraries (Gilmer 1994; Hunter 1996; Jackson 1997). A recent study conducted by the Association of Research Library showed an increasing demand for this service (Jackson 1997). Over the last decade for academic libraries "lending grew by 61 per cent and borrowing increased by 116 per cent" (1).

The ARL data indicate that these numbers are sure to increase as the need for information increases, as client expectations increase, and as on-site collections shrink (ARL 1994a; Jackson 1997). If the trend continues, interlibrary loan service will become a primary service offered by academic libraries. The question that arises is how to appropriately measure the quality of this service within institutions and across the field ensuring client expectations and needs are being met.

Statement of the Problem

The primary objective of this study was to investigate interlibrary loan service in large academic libraries across Canada from the perspective of the client. The study sought to further understand the relationships between performance and outcome measures within the context of measuring a specific service in academic libraries, interlibrary loan service, from the perspective of the client.

The overall research question was as follows: Are traditional performance measures of interlibrary loan performance congruent with more recently devised outcome measures of the performance of this service from the perspective of the client? More specifically, the study was based on the premise that clients make service quality judgments -- consciously or unconsciously -- by assessing whether or not the actual service consistently meets their expectations over time. It extended the application of SERVQUAL in the library sector and focused on the general problem area of perceived quality in academic libraries using an approach that assumes that clients using the service play a key role in the evaluation process.

Performance data were collected from academic libraries across Canada. Data gathered included:

a) selected characteristics of participants using interlibrary loan service,
b) anecdotal information about participants' interlibrary loan experience,
c) fill rate and turnaround time,
d) participant expectations for interlibrary loan service,
e) participant perceptions of the performance of the interlibrary loan service, and
f) satisfaction with interlibrary loan service.

The questions that were investigated within each of these clusters were as follows:

a) Selected Characteristics

1. Gender of participants.
2. Age of participants
3. Previous experience with an academic library
4. Previous experience with interlibrary loan service at an academic library and at other libraries.

b) Participant Experiences

1. What kinds of questions did library staff ask?
2. Who did the participants talk to/speak with during their visit to the library?
3. What was the atmosphere of the library?
4. How did the participants feel during their transaction?
5. Was the staff friendly, efficient and willing to help?
6. Was their experience satisfying or not?
7. What recommendations can they make for this service?

c) Traditional Library Measures of Interlibrary Loan Service Quality of Service

1. Was the request filled? (fill rate)
2. Was the right article provided?
3. What was the fill rate for this study and how does it compare to the national averages?
4. How long did it take for the participants to receive the article? (turnaround time)
5. Were the participants contacted immediately when the article came in?
6. What was the satisfaction rating (fill rate) for participants in this study and how does that compare to other library studies for interlibrary loan service?

d) Participant Expectations

1. What did the participants expect from Interlibrary Loan service in academic libraries as measured by the SERVQUAL instrument?

2. What are participant rankings of the five dimensions of service quality as measured by the SERVQUAL instrument?

3. How do the expectations of the participants in this study compare to other studies in the library field?

e) Participant Perceptions

1. What were the participants' perceptions of the performance of Interlibrary Loan service as measured by the SERVQUAL instrument?

2. What do these participants perceive to be important for this library service?

3. What were difference scores for Interlibrary Loan service in this study?

4. Are the difference scores (outcome measures from the clients perspective) congruent with fill rate and turnaround time (performance measures from the library's perspective) for Interlibrary Loan service excellence?

5. How do difference scores for this study compare to private sector studies on service quality?

6. Is the SERVQUAL instrument suitable for use as a management diagnostic tool in academic libraries?

7. Did the participants' experience meet their expectations?

8. Were participants satisfied with their experience?

9. Were participants willing to recommend this service to others?

10. What were the participants' overall attitudes towards the academic library in general?

In order to obtain reliable information about actual client experiences with interlibrary loan service, an unobtrusive methodology using the SERVQUAL instrument as the major tool of data collection was employed, following similar approaches in other library based studies (see Hébert 1994; Nitecki 1996).

Importance of the Study

This study is important because it is one of the first to use an unobtrusive approach in academic libraries to examine the quality of interlibrary loan service from the perspective of both the library and the client. It is one of the first to use an unobtrusive approach with the SERVQUAL instrument. It is also the first Canadian study to collect and compare this kind of performance data across a large number of academic libraries in Canada.

Knowledge of whether client measures of service quality are congruent with library measures of service quality is important for a number of reasons. A gap between client and library measures may indicate that the library is performing to an internal, institutional standard that does not reflect real-life experiences with service. The results may show that there are shortcomings with traditional measures of interlibrary loan service, and thereby provide an alternative, standardized measure for evaluating the performance of interlibrary loan services within an academic library and for comparing performance with other academic libraries. The study may also assist in the development of effective communications programs, in the reduction of operating costs through a redirection of resources, and in the development of appropriate staff training programs.

The study is also important because it is a further test of the SERVQUAL instrument in the public sector and specifically in the library field. SERVQUAL has been used successfully in insurance companies, retail outlets, and banks as a benchmarking tool, as a tool to evaluate the success of specific service quality initiatives such as Total Quality Management (TQM) and as a management diagnostic tool (Parasuraman et al. 1985, 1988,1991). A major stumbling block to implementing service quality initiatives such as TQM in libraries is the lack of a standard instrument for measuring performance (White and Abels 1995). It has been suggested that

SERVQUAL may provide this standardized instrument (Hébert 1994; White and Abel 1995; Nitecki 1996). The modification and application of this instrument, therefore, may facilitate the implementation of appropriate quality strategies from the private sector that will lead to better service effectiveness within academic libraries. It is hoped that the results of this study will encourage academic librarians to become more committed to client-oriented service philosophies and client-oriented service evaluation strategies.

Definition of Key Terms

The following key terms are defined conceptually and operationalized as variables: client expectations of service, difference score, dimensions of service quality, fill rate, interlibrary loan, objective quality, outcome measures, perceived quality, performance measures, satisfaction, service quality, SERVQUAL, and turnaround time.

Client expectations of service is what a client feels an excellent service organization *should* offer. Expectations are normative in nature and are affected by and formed by such factors as past experience, word-of-mouth communications and external communications (advertising, publicity).

Difference score is a number derived by subtracting the ratings for expectation from the ratings for perception of service. It is sometimes called the gap or disconfirmation score.

Dimensions of service quality consist of a number of criteria which clients evaluate service quality. The five dimensions are tangibles, reliability, responsiveness, assurance, and empathy. These dimensions are the conceptual basis for the SERVQUAL instrument (see p. 37).

Fill rate is the degree to which the interlibrary loan request is filled by the library. While fill rates vary greatly amongst academic libraries, when based on the final transaction, these rates usually ranges from 75 to 90 percent (Jackson 1997). Fill rate is also referred to as the success rate or the satisfaction rate.

Interlibrary loan is the process by which a library requests materials from, or supplies materials to, another library. Interlibrary loan includes the provision of reproductions as substitutes for loans of the original materials (Canadian Library Association 1995, 4).

Objective quality involves a tangible aspect of an item or thing.

Outcome measures are measures of performance usually service focused such as satisfaction and service quality.

Perceived quality involves the subjective responses of people to objects and intangibles, such as service. It is a phenomenon that differs between individuals.

Performance measures are measures of performance that are based on the perspective of the organization. Usually based on standards set by an organization or more broadly by a profession. Fill rate and turnaround time are both examples of performance measures.

Satisfaction is conceptualized in the service marketing literature as a psychological state resulting when "the emotion surrounding disconfirmed expectations is coupled with the client's prior feelings about the consumption experience" (Oliver 1981, 27). It is generally accepted that satisfaction relates to a specific transaction as opposed to perceived service quality, which is referred to as a global judgment, or attitude, relating to the excellence of a service over time. Operationally, satisfaction is the emotional reaction immediately following a service transaction (Oliver 1981).

Service quality is conceptualized in the service marketing literature as perceived quality which is the client's "judgment about an entity's overall excellence or superiority ...related but not equivalent to satisfaction" (Parasuraman et al. 1988, 15). Operationally, service quality results from the comparison of client expectations with perceptions of actual performance. The closer the performance of service to expectations, the higher the quality of service is assumed to be.

SERVQUAL is the measuring instrument of service quality that captures this comparison. It measures service quality by rating client expectations and perceptions of services using 22 matching statements (Parasuraman et al. 1985). It can be used to assess an organization's quality along each of the five dimensions by averaging the difference scores on items making up the service dimension or it can provide an overall measure of service quality across all five dimensions. Turnaround time is the time period beginning with the initiation of an interlibrary loan request by a client and ending when a client receives notification that the item is available for pick-up. Turnaround time usually involves the borrowing library processing time, request transit time, lending library processing time; material transit time and borrowing library processing time. It is based on calendar days.

Assumptions and Limitations of the Study

The study was based on a number of assumptions relating to a) service quality and b) interlibrary loan service:

a) service quality assumptions

- Clients play an integral role in assessing quality as only clients can judge quality; all other judgments are irrelevant (Zeithaml 1990).
- Service quality is important to the libraries and librarians offering the service.
- The nature of service quality is similar in libraries to that in service-based businesses.
- SERVQUAL is a valid and reliable instrument for measuring service quality in service-based organizations.

b) interlibrary loan service assumptions

- Interlibrary loan service is a core service.
- Libraries are the central information providers on university campuses.
- Client expectations will continue to increase as the need for information increases.
- Librarians have considerable influence and control over future interlibrary loan services.

The study also had a number of limitations:

- Since only four transactions were conducted at each test library, claims of individual library performance can not be made with any degree of accuracy. However, a trend toward poor service quality ratings should be of concern to any library administration.
- The research project was exploratory, and transactions may not be representative of academic interlibrary loan service on a national scale. Caution should be exercised when results are used as a benchmark for service in Canadian academic libraries.
- Since the SERVQUAL instrument was used with proxy clients in an unobtrusive situation, participant bias may be a concern. The fact that participants were aware that they were taking part in a research project might have affected their responses. For example, they might have been more assertive in requesting the article or they might have persevered longer in waiting for the article.

Chapter II

Review of the Literature

The Search Strategy

The literature search was conducted in two parts. First, in order to gain an understanding of the marketing literature, two important service marketing journal articles and two key monograph publications were used to determine foundation articles for the thesis. Key words used in the search for articles were also taken from these publications. Next, a search was conducted on ABI Inform, a database indexing over 1,000 prominent business journals, using the Dialog on-line database. To search all databases fully, a number of search statements were used. The search terms used are as follows: a) service marketing, b) service marketing and (service quality or quality service), and c) SERVQUAL. Limitations of publication year were not included in the search strategy because the intent was to gather as much information as possible. The search produced over 500 relevant hits.

Second, a search was conducted on Library and Information Science Abstracts (LISA) and Library Literature (LL) using the Dialog on-line database. Similar search terms were used in the library literature, although modifications were made because the phrase "service marketing" is not as commonly used in the library field. The search terms used are as follows: a) service (w) quality, b) quality (w) service and c) interlibrary (w) loan. Over 155 articles were retrieved with over half directly relevant to the thesis research.

The GATE, the University of Alberta catalog was used to determine the availability of the materials identified in both the foundation papers and on the electronic databases.

The Literature

Although the need to maintain and improve the quality of service offered by library institutions is recognized, only a small segment of academic libraries are actively involved in formal quality improvement programs (Siggins and Sullivan 1993). The extent of the commitment to quality improvement programs such as Total Quality Management (TQM) or service excellence programs such as Total Quality Service (TQS) is evident in the results of a 1993 survey conducted by the Association of Research Libraries (ARL). Of the 91 libraries that responded to the survey, only 15 indicated an involvement in a quality improvement program. Of these 15, five were participating in a specific service quality program. Assuming that this is a representative sample and given that there are a large number of libraries in Canada and the United States, this is a very small number.

This lack of action toward or acceptance of quality programs in academic libraries is likely due to a number of factors. These factors are listed below.

- The confusion surrounding the definition of quality, the concept of client satisfaction, and the absence of an empirical basis or proven way of measuring quality within academic libraries institutions (Cullen and Calvert 1995; Nitecki 1996; Pritchard 1996).
- The fact that few academic libraries "exist in a vacuum" and that there is always a larger context for assessing library quality, for example, the achievement of the goals of the parent organization (Pritchard 1996).
- The fact that current and past measures of library performance are unidimensional and have become overly specific and "focused on tasks that do not represent the total business of the library very well" (Cullen and Calvert 1995, 439).
- The reluctance of library managers to accept a basic tenet of service evaluation -- that the recipient of the service determines the effectiveness of the service (Seay et al. 1996; Holt 1996; Nitecki 1996).

All these factors are particularly relevant to academic libraries where a didactic model for service provision has often been employed (Quinn 1997). Academic libraries are part of larger learning organizations and librarians working in that environment view their role as teaching information skills to clients. The question that has been debated in the literature for many years still remains -- should librarians give students information or the skills to find the information? Librarians make choices for clients, choices that client's may not necessarily make for themselves. These choices may also be contrary to the expectations of the client which, according to recent studies, are based on convenient and easy access to information and the level of service provided in facilitating that access (D'Elia and Rodgers 1996; Seay et al. 1996). The didactic model of service seems to be in conflict with the newer philosophies surrounding the provision of quality service (Quinn 1997).

To date, there are very few alternatives to understanding quality --specifically the satisfaction with or the measurement of quality --within the context of academic libraries. This chapter describes the current definitions and measures of academic library quality performance and provides an alternative conceptualization of satisfaction and service quality drawn from other fields. Alternative models of service quality and the instruments used to measure this concept are also discussed. The focus, however, is on the SERVQUAL instrument used extensively in service-based businesses as a measure of the service quality construct.

Defining Quality in Academic Libraries

Since the early 1970's, definitions of effectiveness, an early term for quality, ranged from "technical efficiency measures to vague statements of goodness but most have focused on goal achievement, efficiency, user satisfaction, personnel management and the ability of the organization to survive" (Pritchard 1996, 574). One of the first researchers to begin the definition process was Richard Orr (Nitecki 1996). In a landmark publication, Orr made a distinction between library quality and the value of library service. He suggested that library quality had to do with "how good the service was" and library value referred to "how much good it does" (317). He further identified four broad areas for library effectiveness -- resources, capability, utilization and beneficial effects -- upon which specific definitions could be based.

These areas are still valid today although the library community has struggled with the concepts encompassed in his definition of library effectiveness. Defining quality has become one of the greatest challenges facing academic libraries (Nitecki 1996). Despite the large amount of published materials in the areas of both library effectiveness and quality performance measurement, the profession still "lacks many essential models and forms of measurement" (Pritchard 1996, 573). Library quality has been assessed in terms of library collections –their size, diversity and comprehensiveness of subject coverage --largely because these are constant (Nitecki 1996). The definition of quality currently used within academic libraries does not reflect the dynamics of change

Quality is constantly being re-defined by library stakeholders. For example, quality is defined by:

- clients whose demands for service and materials shift with the changes in society,
- staff whose willingness to show leadership in evaluation, to shift with both internal and external pressures on the organizational structure, and
- boards and administrators whose focus is on funding and policy-making that will maintain the excellence of the institution (Holt 1996).

To this end, library quality can be seen as a moving target.

One definition of quality that has gained increasing credibility in the field of library and information studies is that put forth by Childers and Van House in 1993. They define effectiveness as multi-dimensional involving three key ideals: "goodness, achieving success, and the quality of performance" (Childers and Van House 1993, 5). Although this definition of effectiveness was developed for public libraries, it incorporates broad concepts that are transferable to all types of libraries. It is particularly relevant to academic libraries because it attempts to define, in broad and simple terms, the important relationships between performance and outcome measures in relation to the overall effectiveness or quality of academic libraries. It is also important because the definition encompasses the dynamics of change.

Childers and Van House (1993) have suggested that goodness is an aspect of effectiveness that is defined by the role of libraries in society. The dimensions associated with goodness are global measures that are guided to a great extent by the mandate or mission of the educational institution within the community as a whole. It is also what makes public organizations different from private sector companies. Public organizations are supposed to be good – "libraries are supposed to be good" (Childers and Van House 1993, 5; see also Buckland 1988). Libraries are an integral component of a democratic society and are required to uphold philosophical principles such as intellectual freedom and the right of a country's citizens to have equal access the printed word. Service to society, therefore, is fundamental to the libraries and it is this service component that is one basis for the definition of the effectiveness of library institutions (Childers and Van House 1993).

Achieving success is an aspect of effectiveness related specifically to the definition of internal organizational processes (Van House and Childers 1993; Giappiconi 1995; Pritchard 1996; Shaughnessy 1996). The focus here is on defining appropriate management structures, roles of library personnel, size of collections, accesses to relevant information and so on. For example, interlibrary loan service standards such as fill rate and turnaround time define the effectiveness of that service. This has been the focus of evaluation for most academic libraries.

Academic library quality or effectiveness is also defined in terms of its contribution to or impact on the delivery of educational and research services to the parent institution (Pritchard

1996). This is part of what Childers and Van House (1993) referred to as the quality of performance. They define the quality of performance through a number of dimensions or criteria by which clients and stakeholders of a given library determine quality. These dimensions are predictors of quality and they help academic libraries to define from the client's point of view what makes an experience satisfactory or not. Mcdonald and Micakas (1994) further defined quality of performance to include three areas:

- performance that satisfies the information needs of the faculty, students and other clients,
- performance that contributes to the success of the parent institution's educational goals, and
- performance that accomplishes the first two areas efficiently and effectively.

This multi-dimensional definition of quality within academic libraries is relatively new but is being met with increasing acceptance as academic libraries struggle with the pressure to be more accountable and relevant to those who support and use their services.

Quality Performance Measures in Academic Libraries

Within libraries the measurement of quality has traditionally been a part of the measurement of effectiveness (Hamburg et al. 1972; Orr 1973; Baker and Lancaster 1991; McDonald and Micikas 1994; Pritchard 1996). In the late 1970's, academic libraries began to move from quality measures of quantity to ones of process and satisfaction (Taylor 1972; Dougherty 1972; Du Mont and Du Mont 1979). The literature on performance and outcome measures is well documented by Goodall 1988, Van House 1989, Shapiro 1991, and Pritchard 1996. These authors describe attempts to measure effectiveness in broad terms such as inputs, processes, outputs and outcomes.

There are four major models that have been used to measure the effectiveness of library services. These models are all based on organizational effectiveness models from the management literature. These models are:

- Goal attainment model in which the organization measures its effectiveness based on the attainment of specific goals set by the organization. This model has achieved some degree of success in academic libraries but those libraries using it often fail to include all those involved in the library decision making process (see Van House et al. 1990).
- Systems resource model in which an organization's success is evaluated based on its ability to secure resources from the environment. This model has been used in academic libraries but with limited success (Giacopponi 1995).
- Internal process or systems model in which stability and internal control processes are used as measures of performance. This model is primarily an efficiency model that can often become internally focused and system driven and which tends to exclude client expectations of service (Cullen and Calvert 1995).
- Constituency satisfaction model in which an organization is evaluated based on the degree to which its stakeholders are satisfied. The model is based on the premise that all stakeholders have needs and expectations that must be fulfilled and it is up to the organization to meet those needs consistently over time (Zammuto 1984; Cullen and Calvert 1995; Pritchard 1996). This is a promising model for use in academic libraries but the measures of satisfactions used most often are too general to be useful to service enhancement (Hernon and Altman 1996; D'Elia and Rodger 1996).

While none of the models have clearly emerged as the best way to measure library effectiveness, "all have been used with some degree of success in academic libraries" (Cullen and Calvert 1995, 440).

The model most often used in academic libraries is the internal process model sometimes referred to as the systems model. It is a model that conforms well to the Orr Model of Input and Output (Orr 1973). It can use both performance and output measures to assess the overall effectiveness of an organization in meeting the needs of its community (Childers and Van House 1993; McDonald and Micikas 1994; Cullen and Calvert 1995). In this model, effectiveness or the end result, quality of service, are considered in terms of organizational inputs and processes and in terms of outputs and outcomes of the service to the community (Van House et al. 1990; Cullen and Calvert 1995).

The systems model offers a simple framework for assessing organizational effectiveness in an inclusive way (Childers and Van House 1993). It views a library as a system that encompasses a number of elements essential to the functioning of that system. Those elements are:

- Inputs – "the resources that are needed to support the library system such as money, staff, materials and physical plant" (Childers and Van House 1993, 17). This element includes number of staff, total budgets, number of volumes and physical space.
- Processes – "the activities that transform the input into outputs" (17). This element includes the number of titles catalogued, number of volumes owned, fill rates or the number of overdue notices sent.
- Outputs – "the products or services of the system such as reference service, interlibrary loan service, or reserve" (17). This element includes the number of questions asked and answered, turnaround times, or the number of items circulated.
- Outcomes – "the use of the information by the client and the impact or change in the client or the community as a result of that information" (13). This element includes user satisfaction with the service or increased awareness of stakeholders.

The focus in academic libraries thus far has been largely on measuring inputs and processes. These measures can be controlled within the system, are confined to the library environment and are therefore easier to measure and evaluate than outputs (Hernon 1987).

Fewer measures used in academic libraries fall into the output category and even fewer into the outcome category (Childers and Van House 1993; Cullen and Calvert 1995; Pritchard 1996). The questions of "how the service performed" and "how the service had an impact on the client and the community" are not often asked. Output and outcome measures create more difficult problems for assessment because they are the least easily observed parts of the system (Childers and Van House 1993). The measures used try to assess the impact or value of library services but because services are intangible, heterogeneous and perishable, it is very difficult.

In most cases, the impact or the quality of a service is still being evaluated based on an internal set of standards as defined by the library or by the profession and not by the client (Van House et al. 1990; Childers and Van House 1993). For example, of the 15 output measures defined by Van House and others (1989), 12 focused on the use of internal statistics as an indication of satisfaction, and only three suggested the use of client reports of service to indicate satisfaction. Even the implementation of Total Quality Management, a management system designed to implement quality service within organizations with the client's needs in mind, is still focused on streamlining internal processes as a measure of service effectiveness in the community. Libraries that meet or exceed the set standards often conclude that their service is good or even excellent and that clients are satisfied (Waldhart 1985; Van House 1989; Hébert 1994).

There is a growing recognition within the library community that organizational performance measures of service may not represent service quality in the same way as do user-focused measures of service (Hernon and McClure 1990; McDonald and Micikas 1994; Nitecki 1996). Performance measures such as fill rates and turnaround time measure only the portion of requests that have been met and not the extent to which the needs of the client have been satisfied (Van House 1989; Hébert 1994; Shaughnessy 1995). Internal library criteria based on factors considered most important by librarians and library management may not adequately measure the quality of performance provided by the institutions from the perspective of the client (Hernon and McClure 1990; Edwards and Browne 1995; Nitecki 1996).

It has become obvious that measuring effectiveness is not necessarily the same as measuring library performance and that measuring library inputs is not the same as measuring the quality of library outputs or the impact library services have on the community (Cullen and Calvert 1995). More complex measures of effectiveness, ones that are broad-based and include user-defined criteria of quality, are necessary if academic libraries are to be able to prove their worth to both parent organizations and larger government bodies.

Outcome Measures in Academic Libraries

Quality and effectiveness are multi-dimensional constructs that require multi-dimensional measures. A large number of clients as well as internal and external stakeholders contribute to the decision-making that occurs in an academic library. Those involved in library institutions need to understand the dimensions of effectiveness from the perspectives of stakeholders in order to produce practical outcome measures for quality (Cullen and Calvert 1995). There have been some attempts to understand the dimensions of quality within academic libraries (see for example, Van House et al. 1990; McDonald and Micikas 1994, Dewdney and Ross 1994, Cullen and Calvert 1995; Edwards and Browne 1995, D'Elia and Rodgers 1996, Nitecki 1996; Jackson 1997). The majority of these studies have focused on identifying the dimensions of client satisfaction.

A review of the literature suggests that academic librarians, in particular, view and measure satisfaction from three different perspectives:

- as interactions among employees within the organization,
- as services provided for and used by clients, and

- as organizational system effectiveness, or how well a service is performed to standard procedures (Hernon and Schwartz 1996; Calvert and Hernon 1997).

They also tend to view satisfaction from three measurement perspectives: "generic, attribute, or specific service measurement" (Hernon and Schwartz 1996, 295). Generic measurement is the most commonly used method and this usually involves the use of general questions such as 'how satisfied are you with your library visit' or 'how did we do'? The extent to which these types of generic questions help improve the quality of individual services within the library institution is being questioned (Calvert and Hernon 1997). It is becoming increasingly clear that the use of general measures of client satisfaction is inappropriate when these measures are "not linked to specific library uses or time frames" (Hernon and Schwartz 1996, 295).

Attribute measurement looks specifically at variables such as staff friendliness and helpfulness and the relevance of the information received and the relationship to client satisfaction (Hernon and Calvert 1996). In the literature, client satisfaction has been positively linked to such attributes as staff friendliness, accuracy of the information, the physical environment, expectations met and even the willingness to return to the library (Crews 1988; Durrance 1989; Hernon and McClure 1990; Dewdney and Ross 1994; Hébert 1994; Nitecki 1996). The relationship between satisfaction and these attributes is not clear. What, for example, is the basis for attribute measures, and are they measuring expectations or the gap between expectations and the actual service provided (Calvert and Hernon 1997; Quinn 1997)?

In a recent investigation that applied both generic and attribute measures to library service, D'Elia and Rodgers (1996) discovered that high levels of client satisfaction were positively related to two important measures of satisfaction: a) the quick access to information and b) the provision of service that facilitated access to that information. It was apparent that clients expected libraries to provide "access to the information they needed whether through the library's collection or through facilitated access to other sources" (295). The identification of access as an outcome measure has major ramifications for how libraries meet the information needs of their clients and for the provision of interlibrary loan service.

New effectiveness or quality guidelines are being suggested, ones that reflect the multi-dimensionality of quality, ones based on empirical research, and ones that include appropriate measures for resources, services, interactions with library clients, and the provision of access (McDonald and Micikas 1994). There is, however, more to learn. Service quality and satisfaction approaches to measuring and evaluating service view organizations and their services from the clients perspective and not exclusively from organizational ones (Hernon and Schwartz 1996). Understanding this relationship between client perspectives and organizational perspectives will ultimately lead to new performance and outcome measures, ones that can improve the provision of service to the community.

The service quality approach to measuring effectiveness presents opportunities for the development of new strategies and outcome measures that are beneficial to library management on a practical level (Childers and Van House 1993; Hébert 1994; Nitecki 1996; Hernon and Schwartz 1996; Hernon and Altman 1997; Quinn 1997). The literature on service quality produced outside of the library and information studies field is large. The next section will review the literature from other fields with a particular focus on the service marketing literature and the approaches used to measure satisfaction and service quality from the perspectives of the client.

A Conceptual Approach to Service

The service industry has become the largest single business in the world with nine out of ten jobs created by the service sector (Albrecht 1988; Davidow and Uttal 1989). Almost every business, even those based on manufacturing, competes to some degree on the basis of service. Individuals of all ages and from all walks of life expect to receive first class, customized service whether buying products or services. When those expectations are not met, these individuals do not return.

Service is experiencing the same decline in quality that has plagued manufacturing over the last few decades and has become a critical and strategic issue amongst business executives. In fact, a recent survey of top executives in the United States and Canada ranked the improvement of service as the single most important business challenge facing the world today (Zeithaml 1990). Traditional quality movements have failed largely because they are narrow in their focus (Crosby 1992). It is becoming increasingly clear that "completeness of effort" throughout the entire organization is the best strategy to achieve quality (Holt 1996).

Business executives in the fields of marketing and management are now paying close attention to the provision of excellent service quality and its relationship to client satisfaction (Zeithaml 1990). Recent research is now providing a new understanding of service within the context of quality implementation, and new models for measuring service quality have been conceptualized. Indeed, in the past few years, service quality has become the single most researched area in the services marketing literature (Fisk et al. 1993). Those businesses that are embracing the new service quality models are also experiencing increases in market share, productivity and profits, and decreases in costs and client turnover (Anderson and Sullivan 1984; Berry et al. 1990).

Service quality has become quite distinct from product marketing both in theory and in practice. The next section will discuss these differences.

From Products to Service Encounters: Understanding Service Criteria

While it is clear from research reported in the marketing literature that product and services are different, service quality has not been studied to the same degree within the field of marketing as has product quality (Fisk et al. 1993). Product marketing and the strategies surrounding it have dominated the service marketing literature for many years. Consequently, the assessment of service quality has been assumed to be equivalent to the assessment of certain attributes of a product. In this conceptualization, good service quality is taken to be compliance of these attributes with specific standards (Klaus 1985).

There are problems with this conceptualization of service quality within the context of a product model. Knowledge of a product attribute, for example, is not sufficient to provide an understanding of the complexities of service quality. Klaus (1985) has suggested that there are five false assumptions made by those who use the product attribution approach to assess service quality. Those false assumptions are that service quality is:

- a physical object that can be observed and measured,
- static not interactive,
- aggregate not individualistic,
- rationalistic based on the belief that human interactions follow some predetermined rules, and
- only focused on management-defined output measures and neglects client perspectives (20).

Other critics have also identified differences between services and products and suggested that services be based on a number of distinct characteristics such as: intangibility, inseparability of production and consumption, heterogeneity, and perishability. Because services have distinct characteristics from products, they must be measured and evaluated accordingly (Bateson 1977; Shostak 1977; Berry 1980; Lovelock 1981; Zeithaml 1981; Parasuraman et al. 1985). In fact, much of the rationale for the different treatment of goods and services is based on the existence of these unique characteristics in service delivery (Zeithaml et al. 1985).

The intangibility of services is a key focus, and it has been argued that all other differences between goods and services emanate from this distinction (Bateson 1979). In this context, services are perceived as performances. Services are not like objects and they are not felt, seen, tasted or touched in the same way that goods are experienced (Zeithaml et al. 1985). Services are invisible and immaterial. They are, nonetheless, real.

Issuing from the notion of intangibility is another unique characteristic described in the literature: the inseparability of the production and consumption of services. Services are first sold and then produced and consumed together. This is unlike goods, which are sold and then consumed. Inseparability of service encounters means that the producer and the seller are the same, and this has implications for both distribution and quality of performance.

The characteristic of heterogeneity refers to the high degree of variability that can occur in the performance of the service (Booms and Bitner 1981, 1990; Zeithaml et al. 1985; Berry 1985, 1980). The quality of a service, for example, can vary from day to day and from client to client. Employees play a great role in this variability. Performance can vary greatly from one employee to the next as can the performance from one service transaction to another. And, while there can be variability in goods, generally standards can be set for specific aspects of a good much like the standards set by the International Standards Organization (ISO 9001 and 9002 standards for manufacturing).

Finally, perishability refers to the fact that services can not be saved or inventoried (Zeithaml et al. 1985). This has specific implications for the supply and demand of service. Sometimes demand can be too great, for example, a restaurant may be too popular on Friday evening. At other times, the demand is too low as is the case with golf in winter. The attribute of perishability makes service encounters unlike goods that can be manufactured quickly in response to demand in the marketplace. This again has implications for distribution and for the quality of performance.

The recent literature suggests that these unique characteristics have implications for marketing and that specific strategies are required for dealing with them (Shostack 1977; Gronroos 1978; Enis and Roering 1981; Bitner and Zeithaml 1981; Zeithaml et al. 1985). Strategies for capitalizing on the intangibility of services should stress tangible cues, stimulate word-of-mouth communications, and create strong images of the service through external communications. Issues of inseparability may be addressed by strategies that emphasize employee training and the management of the customer through such programs as Total Quality Management (Zeithaml et al. 1985).

There is no one definition of quality that applies to all types of service organizations. It is, however, more or less accepted that service quality is a complex profile of "physical, behavioral, psychological and other variables that need to be understood and through which service quality must be managed" (Klaus 1985, 17). The product model of service has already been discussed in detail. The second conceptualization of service quality looks specifically at the processes. This service perspective defines quality as a dynamic process between a client and a service organization and is the focus of the next section.

Service Quality: A New Understanding

The complexity of service encounters makes it difficult to control and manage the quality of performance. Recent research has lead to a number of key themes upon which the conceptualization of service quality is based. These themes are:

- There is a difference between goods and services (Shostack 1977; Bowen 1990; Fisk et al. 1993; Berry and Parasuraman 1993) that requires a separate marketing strategy be developed. The strategy must focus on the process of the service encounter and in setting appropriate expectations for that encounter (Shostack 1977; Gronroos 1978; Enis and Roering 1981; Bitner and Zeithaml 1981; Zeithaml et al. 1985).
- Clients find service quality more difficult to evaluate than the quality of goods; what becomes important for the service provider is to identify the criteria used by the client to evaluate service quality (Parasuraman et al. 1985, 1988, 1991).

- Clients do not evaluate service quality solely on the basis of outcome, but consider the process of service delivery. The expectations for a given service, the employees, and the management systems in place all contribute to the processes involved in service delivery and are therefore, crucial components of excellent service quality (Bowen 1990; Zeithaml 1990; Berry and Parasuraman 1993).
- Client criteria are the only criteria relevant to the assessment of service quality and quality is only judged by the client -- all other judgments are irrelevant to the process (Zeithaml 1990).

A. Parasuraman, Valerie Zeithaml, and Leonard Berry conducted the largest series of exploratory studies into service quality in the 1980's. They have suggested that service quality must go further than just the establishment of service standards to include the client's judgment about the ability of the service to perform against certain expectations. They have argued that there is an important difference between perceived quality and objective quality and that both are essential in the assessment of service quality (Gronroos 1982; Garvin 1983; Zeithaml 1990; Parasuraman et al. 1991).

Objective quality involves a concrete aspect or feature of an object, not unlike those attributes measured in the product model of service quality discussed in the previous section. Perceived quality, on the other hand, involves a more humanistic component -- the subjective responses of clients to objects or events. It consists of an "attitude, related but not equivalent to satisfaction and results from a comparison of expectations with perceptions of performance (Parasuraman et al. 1988, 15).

The conceptualization of perceived quality is grounded in the "theory of disconfirmation". This theory is the dominant framework from the marketing field for explaining the process by which clients develop feelings of satisfaction or dissatisfaction with products and services

(Gronroos 1984; Engels et al. 1968; Howard and Seth 1969; Olashavsky and Miller 1972; Anderson 1973; Oliver 1980, 1981; Cadotte et al. 1987). The theory is based on the "opposition process model", from the field of cognitive psychology, which provides a framework for the formation of attitudes (Oliver 1981). Disconfirmation theory conceptualizes the formation of client expectations through various activities such as word-of-mouth communications, past experiences, or external communications, and the "disconfirmation" of those expectations through a comparison of expectations with perceptions of performance (Oliver and De Sarbo 1988).

Disconfirmation theory consists of four constructs: expectation, performance, disconfirmation and satisfaction (Oliver 1981; Churchill and Surprenant 1982). Clients make judgments based on a comparison of expectation and performance. The result of this comparison is labeled a "negative disconfirmation" if the service is less than expected, a "positive disconfirmation" if the service is better than expected, and a "simple confirmation if the service is as expected (Oliver 1981). If a client experiences service as expected or better than expected, they will experience high levels of satisfaction.

Expectations, in a sense, become a standard or a reference point when clients evaluate a given service (Zeithaml et al. 1993). This standard is not a standard as in the case of product standard, but a normative standard based on what the client feels excellent service providers *should* offer (Parasuraman et al. 1988). This is an important distinction. Expectations are basically predictions made by the client about what should happen during the service transaction.

The relationship between satisfaction and expectation has sparked an on-going debate within the field of service marketing (Fisk et al. 1993). Satisfaction has been related to economic gain through the generation of profits and has been associated with pre-and-post-purchase phenomena such as attitude change, repeat purchase and brand loyalty (Churchill and Surprenant 1982). The need to justify spending on strategies that would increase satisfaction with a given service has resulted in detailed analysis of satisfaction and its relationship to expectation and thus to service quality.

While the factors surrounding the determinants of client satisfaction are not fully known, what is clear is that the concept of satisfaction refers to individual transactions (Churchill and Surprenant 1982; Parasuraman et al. 1991). Moreover, satisfaction is a moderating factor in the assessment of service quality; it refers to shorter-term attitudes that tend to mellow overtime. In contrast, judgments about service quality are based on longer-term attitudes that can be influenced by past experience and word-of-mouth communications and changed by external advertising and societal values (Taylor and Baker 1994). Researchers have discovered, for example, that it is possible for a client to have an unsatisfactory service encounter with an organization but still continue to rate its service quality as high (Anderson et al. 1993; Spreng et al. 1996). This is particularly true for organizations within the public sphere, such as libraries, where their public image is more positive when compared to that of a business (Bitner 1990).

The problem has been how to measure such complex service constructs. The next section discusses the various approaches to measuring service quality with specific attention paid to the Gaps Model of Service Quality.

Approaches for Measuring Service Quality

Over the last ten to fifteen years, two approaches to measuring service quality have been developed in the field of service marketing (Fisk et al. 1993). The most recent is the performance based approach suggested by Brown et al. (1993). These researchers have suggested that a performance-based model may be more appropriate to the prediction of actual behaviour or behavioural intent than a comparison of expectations and perceptions of performance. This approach, however, has not been widely used in the research to date and its record for assessing service quality has not yet been demonstrated (White and Abels 1995; Kettinger 1997; Pitt 1997).

The other approach is the Gaps Model of Service Quality suggested by A. Parasuraman and his colleagues. Also known as the "P minus E approach," it treats service quality as a gap or series of gaps between performance (P) and expectations (E) of service (Parasuraman et al. 1988).

The Gaps Model is based on a series of exploratory studies that were conducted using a cross-section of service-based for-profit business organizations. The Model is grounded in the "theory of disconfirmation" as discussed previously in this section (see page 32) and identifies five gaps that frequently occur in the provision of services that may affect a client's quality perceptions. Proponents of this Model have suggested that service providers are, in large part, responsible for these gaps in the delivery of service (Zeithaml 1981, 1990; Berry et al. 1985; Parasuraman et al. 1985, 1988, 1991; Zeithaml et al. 1985). The five gaps are as follows:

- Gap One - client expectations of service differ from management perceptions of client expectations
- Gap Two - translation of client expectations into service quality specifications are inaccurate,
- Gap Three - service delivered does not meet service specifications,
- Gap Four - service delivered is not what was indicated in external communications or word-of-mouth interactions, and
- Gap Five - client expectations of service differ from the perceptions of their service experience.

Gaps One to Four relate to organizational measures of service quality effectiveness. These four key discrepancies or gaps exist between management perceptions of service quality and the process of delivering excellent service quality to clients. These gaps represent major barriers in the delivery of service that clients would perceive to be high quality. Gap Five specifically refers to the client's assessment of service quality and represents the discrepancy between expected service and perceived service.

The size of the gap or discrepancy determines the degree of satisfaction with individual transactions and, more importantly, the overall level of service quality in an organization (Parasuraman et al. 1985). Hence, the wider the gap between client expectations and perceptions, the greater the service quality problem. A large negative discrepancy in the gap score may indicate a serious service quality problem. What is essential to understand is that, regardless of how well the services are planned, delivered or promoted, if there is a lack of congruence between client perceptions of service and the provider's perceptions of those expectations, service quality will suffer. Figure 1 shows the Gaps Model.

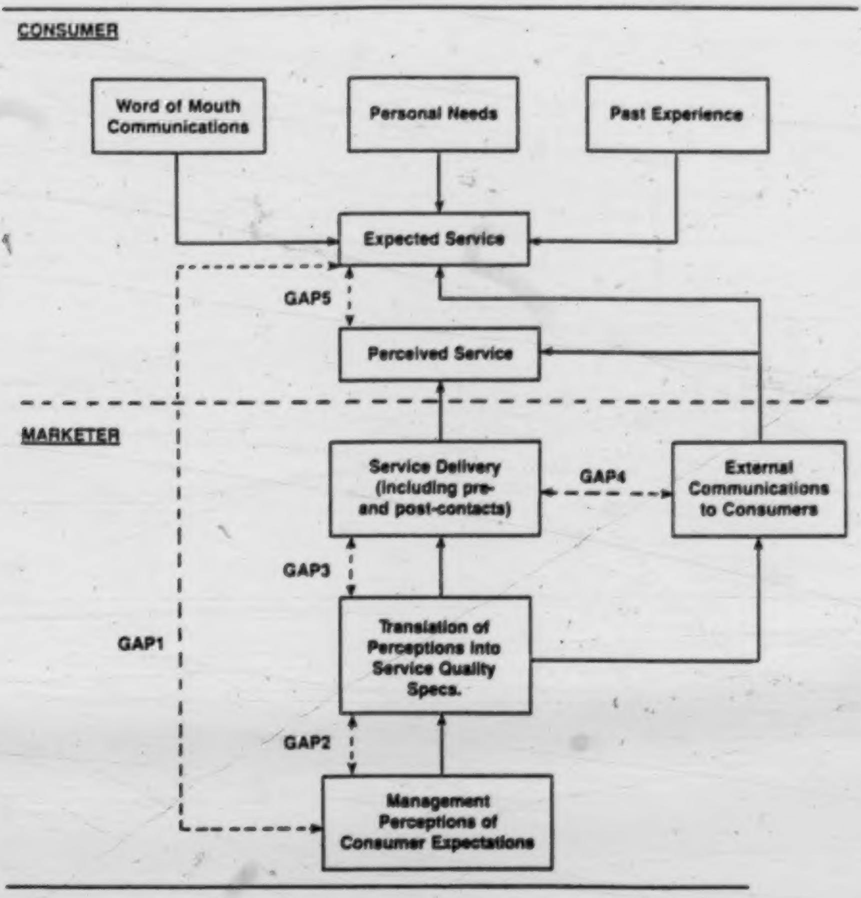
CONSUMER
Word of Mouth Communications
Personal Needs
Past Experience
Expected Service
GAP5
Perceived Service
MARKETER
Service Delivery (including pre- and post-contacts)
GAP4
External Communications to Consumers
GAP3
GAP1
Translation of Perceptions into Service Quality Specs.
GAP2
Management Perceptions of Consumer Expectations

Figure 1. The Gaps Model of Service Quality (Zeithaml et al. 1988, 36).

The conceptualization of the Gaps Model has also led to the development of a standardized service quality measurement instrument called SERVQUAL.

The SERVQUAL Instrument

The discrepancy between expectation and perception of service is the conceptual basis for the SERVQUAL instrument as indicated by gap five of the Gaps Model. The instrument can be used to assess both organizational and client expectations and perceptions of service provided. Over a period of five years, Parasuraman and his colleagues, identified ten general dimensions that represent the evaluative criteria that clients use to assess service quality (Parasuraman et al. 1985, 1988, 1991). The ten dimensions were further tested and formed the foundation of a multiple-item rating scale called SERVQUAL. The instrument was revised in 1988 from the ten original dimensions to five dimensions of service quality. These dimensions are: reliability, responsiveness, assurances, empathy, and tangibles. A definition of each service dimension follows:

- Reliability refers to an ability of the organization to provide what is promised dependably and accurately.
- Responsiveness refers to the ability of the employees to help clients and provide prompt services.
- Assurance refers to the knowledge and courtesy of an employee and their ability to inspire trust and confidence.
- Empathy refers to the individual attention received by the client.
- Tangibles refer to the physical surroundings of the organization, equipment and appearance of the personnel (Parasuraman et al. 1988).

In all of the studies that have used SERVQUAL to measure service quality in both the private and the public sectors, reliability consistently ranked as the most critical dimension of service while tangibles ranked the least critical (Parasuraman et al. 1988). What is interesting is that private and public sectors often spend the most resources on tangibles and least on reliability (Zeithaml 1990).

The SERVQUAL instrument can be used to assess an organization's service quality along each of the five dimensions by averaging the difference scores on items making up the service dimension. Difference scores are computed by subtracting the ratings for expectation from perception. The instrument can also provide an overall "measure of service quality across all five dimensions" (Parasuraman et al. 1988, 30). The researchers envisioned that the instrument would be used in different types of service organizations and modified as needed. It has been used successfully in the insurance industry, in retail outlets and in banks as a benchmarking tool and as a tool to evaluate service quality initiatives and trends. It is most effective when used with other service quality measures such as employee surveys, qualitative logs, focus groups and suggestion boxes. Many of the SERVQUAL dimensions have served as foundations for other similar instruments.

The SERVQUAL instrument consists of three parts. The first part measures the importance of the five dimensions to the client through a ranking of degrees of importance. The second part consists of twenty-two statements intended to measure the client's overall expectations of service using a seven-point Likert scale. The third part contains twenty-two matching statements intended to measure the client's perceptions of the actual service encounter, again using a seven-point Likert scale. Quality ratings are, thus, determined by calculating the difference between the matched perception and expectation statements.

Uses of SERVQUAL in the Library Sector

Hébert (1994) was one of the first researchers to use the SERVQUAL instrument to assess service quality within libraries. The author investigated the quality of interlibrary loan service in thirty-eight large public libraries across Canada using a modified version of the SERVQUAL instrument, and compared results to traditional measures of interlibrary loan service. The study is unique in that it combined the SERVQUAL instrument with an unobtrusive approach using a simulated library interaction (Hébert 1994). The results indicated that there were substantial gaps between client expectations of service and their perceptions of actual services, and that there is incongruence between traditional and alternative measures of service quality (Hébert 1994). This study was invaluable to the current study for its detailed methodology and modifications to the SERVQUAL instrument.

Edwards and Browne (1995) used the SERVQUAL instrument in an academic library setting to determine whether there were differences between client expectations of service (faculty members) and providers' perceptions of those expectations (librarians). Results indicated that while there were some discrepancies between provider perception and client expectation, overall congruence was observed. Further study was suggested to determine if congruence with other key client groups, such as students, would be similar to that found with faculty members. The research was important to the current project for its methodological component and for the modifications made to the SERVQUAL instrument.

More recently, Nitecki (1996) conducted a study to determine the applicability of the SERVQUAL instrument to academic libraries. Three library services were studied --reference, interlibrary loan, and reserve. A total of 564 randomly selected library clients were sent the SERVQUAL questionnaire and a total of 351 responded. The data collected supported the reliability and validity of the SERVQUAL instrument for use in academic libraries as an accurate measure of service quality. Like the majority of studies using SERVQUAL, reliability was ranked the most important service quality dimension and tangibles the least important.

Interestingly, however, the data did not support the existence of five dimensions of service as reported in other studies. The data were less clear for assurances, empathy and responsiveness dimensions. This has been found in other studies and, in fact, Parasuraman and his colleagues are reviewing the overlap between the dimensions of service quality (1991). Nitecki's study was important for its methodological component, for its modifications to the SERVQUAL instrument, and for its statistical testing of the validity and reliability of the instrument for use in an academic setting.

Chapter III

Methodology

This study was exploratory in nature. The methodology and data collection tools selected for the study were similar to those used in Hébert (1993, 1994) and Nitecki (1996). Participants were engaged in an unobtrusive, simulated situation in a number of academic libraries across Canada to allow the measurement of expectations prior to an interlibrary loan service experience and of perceptions following that experience.

Pilot Study

A pilot study was conducted in early 1996 in two academic libraries. Data was collected over an eight week period using an unobtrusive methodology. Proxy clients were chosen using a double arms length process. They were asked to: a) complete the first part of the SERVQUAL instrument which measured their expectations of interlibrary loan service, b) request an article from a journal that the library did not have and record their experience in a client log and c) complete the second part of the SERVQUAL instrument which measured their perceptions of the actual service encounter.

The pilot study served as a test to determine the feasibility of investigating client expectations and perceptions of interlibrary loan service using the unobtrusive methodology. It was anticipated that a modified SERVQUAL instrument similar to the one used for the pilot study would be used for the thesis research. A total of eight proxy clients participated.

The pilot study showed that traditional measures of interlibrary loan and the performance of this service when measured from the client's perspective were not congruent. While traditional measures of interlibrary loan produced a fill rate of 100% and a turnaround time of 12 calendar days, measures of service quality from the perspective of the client showed that their expectations of quality were higher than their perceptions of the service they received. Reliability, the dimension ranked the most important by clients, was rated the lowest in actual performance while tangibles, the dimension ranked least important by clients, scored the highest in performance. The findings of this study were also similar to those found in the published service marketing literature. The results suggested that a larger, more comprehensive study be conducted to further test the preliminary results.

Approvals and Ethics Review Requirements

Approval from the Research Ethics Committee of the School of Library and Information Studies at the University of Alberta was required and secured prior to proceeding with the research.

An Unobtrusive Approach

As in Hébert (1994), unobtrusive testing was selected as the methodological approach for this study. An unobtrusive methodology was chosen to ensure that, as far as possible, a normal interlibrary loan service situation would occur. The methodology offered a number of advantages over other approaches. First, participant level of observation is high and memories are fresh, thus helping to ensure the accuracy of the results (Hébert 1993). Second, the management of test libraries, unaware of the study, can not engage in special behavior toward client requests (Hernon and McClure 1990). Obtrusive measures can bias library staff responses to requests and therefore could misrepresent the nature and quality of the interlibrary loan service that is experienced on a daily basis by hundreds of real clients in Canadian academic libraries.

It is acknowledged in the literature that the central issue in unobtrusive testing is to observe a situation from the perspective of the client to determine exactly what client's experience within their service encounters (Hébert 1993). In fact, unobtrusive testing has been extensively used in libraries to evaluate the accuracy of reference services (Crowley 1968, Childers 1970; Crowley and Childers 1971; Lancaster 1993). The technique was developed to provide an alternative to the broad obtrusive approaches that proved of little value in improving services to clients (Hernon and McClure 1990; Whitlach 1989). It has been suggested that an unobtrusive approach is particularly useful where measures of client perceptions are required (Seay et al. 1996). Unobtrusive observation presents a realistic snapshot of service and the resulting information can be used to improve service (Childers 1987; Seay et al. 1996).

Despite the benefits of unobtrusive observation, a number of concerns have also been raised over the use of this methodology to evaluate services in the library field. This technique tends to measure only one aspect of a service and the results are often then used to judge the entire service (Childers 1970). This may well be the case particularly in reference service evaluation where the focus has been on getting the answer right and not on the entire process surrounding the transaction. This is likely not the case in this study as only one specific service was being evaluated using several dimensions including staff friendliness, willingness to respond and help as well as the fill rate of the request, and so forth.

There are ethical considerations as to whether individuals should be observed without their knowledge and whether informed consent, an integral part of the research process, is necessary or required. In this study, the confidentiality of individuals both those participating and those being observed in the library was honored as the data was reported only in the aggregate and across all institutions. Safeguards were implemented to ensure the anonymity of the individuals providing the service at each test library.

Hébert (1993) arranged for four unobtrusive, discrete transactions per library on the assumption that a set of this size would be sufficient to eliminate random effects associated with participant-observation measures. She also noted that it would be sufficient to minimize two classes of error that can occur when this type of measure is used: a) control effects that are present when the measurement itself becomes an agent working for change, and b) biased-viewpoint effects that are present "when the participant selectively perceives data or shifts, over time, the calibration of observation measures" (Hébert 1993, 36; Webb 1966).

In this study, four participants visited each academic library in fourteen different cities in Canada. Participants interacted with library staff in a simulated situation in which participants asked for an article from a journal the library did not have. While it is obvious that four transactions per library is not sufficient to provide representative data for individual test libraries, a poor quality rating for even one transaction should be an issue of concern for service-oriented library managers. While caution should be exercised in making generalizations about individual test libraries, the number of transactions would, however, be sufficient for reliable statistical analysis across all transactions.

Although it was determined that informed consent of the test libraries was not necessary or desirable, informed consent from the participants was obtained. This confirmed that participants understood their right to opt out of the research project (see Appendix A for consent form).

The data collection process in this study collects data from the perspective of the client and therefore the use of an unobtrusive approach is appropriate.

Participant Selection

As in Hébert (1993), the pilot study conducted early in 1996 used a double-arms length process for the selection of participants. It was, however, determined the technique was too complex. The lack of control over when the transactions occurred, when the results were returned, and why delays might be happening resulted in a longer collection time than was acceptable. Moreover, it was not clear from Hébert's published research report whether the purpose of this technique was achieved, as she mentioned no follow-up with her participants to determine if bias had in fact occurred.

To reduce the possible sources of bias from the library field and the researcher, an arms length process was employed. An intermediary in each of the cities was asked to find five participants who fit the following criteria:

- was not a librarian,
- was over the age of eighteen,
- had used the test library within the previous year (particularly important for two reasons a) participants needed to have formed expectations of the library prior to their visit and b) unobtrusive observation works best when participants selected are actual or 'real' clients of the library), and
- was willing to participate the research project.

Intermediaries then forwarded the names, e-mail addresses and phone numbers of potential participants directly to the researcher. Participants were paid a small honorarium as an unobtrusive methodology works best "when combined with some incentive" (Brokaw 1991, 91). Participants were also reimbursed for any expenses related to the interlibrary loan transaction.

Intermediaries were given a description of the research project and asked not to inform the test library of the existence of the study. Intermediaries were chosen by networking with other faculty, colleagues and students in each city. Although initially thought to be the easiest and least complex way of finding participants, intermediaries at each university were difficult to find and the study experienced an overall intermediary drop out rate of thirty percent. Some intermediaries were uncomfortable with the unobtrusive approach despite the fact that it was made clear that data from individual libraries would not be revealed in the final report. Not having personal contacts in each city was problematic. Relying on third party contacts meant in many cases there was less commitment to the project. Overall, the process was too complex and time consuming, and consideration should be given in future to the use of other approaches.

Initially, the goal was to seek five participants in order to get the required four participants per test library. Where possible, every attempt was made to ensure four participants per test library. However, on average, two out of the five original participants dropped out from each test library, thus necessitating additional solicitations for participants. New intermediaries were contacted and new participants found. In many cases, the total number of prospective participants was as high as eight before four were found. This increased the data collection period extensively. Overall, approximately 200 participants were contacted to participate in this study. Of that number, 54 produced the target number of transactions in 14 academic libraries across Canada.

In order to ensure the informed consent of proxy clients and to ensure that they understood their rights as research participants, the researcher spoke directly to each potential participant identified by the intermediaries. A verbal description of the research project informed them of their right to opt out, of their right to anonymity, and of their right to confidentiality. Those who agreed to participate were read a prepared statement that defined clearly the role they would play in the collection of data. This statement made it clear that they would have to take part in a small deception since they would have to pretend to need an article from a journal that the library was known to not have. A copy of this statement was also sent to participants in the research package (see Appendix A).

One of the problems associated with informed consent is that it can "dirty the test tube" (Kimmel 1988, 28). Some study participants may try to figure out the intent of the study and then attempt to fit the data to the inputed purpose or hypothesis, increasing the likelihood of the researcher's predictions but decreasing the reliability of the study findings. However, a random follow-up with 20 of the 54 participants showed that they did not seem to gain a predictable sense of what the research project was measuring. When pressed further and asked about the significance of the matching SERVQUAL statements, none of the participants in the follow-up showed any indications of knowing the intent of the project. They simply replied that they were recording their service encounter and providing an honest account of what they perceived the service encounter to be. The follow-up showed that it was unlikely that informed consent was an issue in the study.

The Research Instrument

The SERVQUAL instrument was the main data collection tool used in this study. The modified version of the SERVQUAL instrument that was used and tested in Nitecki's study in 1996 of interlibrary loan service at a major American academic library was also used in this study. This modified version was true to the original SERVQUAL instrument developed by Parasuraman and others using the twenty-two matching statements and the original language including the use of the word excellent which was absent from the instrument used in the pilot study (see Appendix B). This was intended to preserve the high reliability and validity of the original SERVQUAL tool. Factor analysis conducted on the data from Nitecki's (1996) study showed similar patterns of factor loading across participants as found in other studies further indicating validity and reliability of the modified instrument used in this study.

The client log form used an open ended question format and was similar to that employed in Hébert (1993) and the pilot study in 1996. The form was developed to help participant's record data relating to their service experiences. The log asked for additional details and comments on their experiences including services and people encountered. Each participant was asked to log the date of their request and the date of contact by the library in order to calculate fill rate and turnaround time.

The instructions to participants were also similar to those used in Hébert (1993) with small modifications for the differences in test libraries. Hébert's study was conducted in public libraries and focused on monograph publications. The instructions were also tested in the pilot study and a follow-up with those participants determined the instructions to be clear. The instructions were as non-directive as possible. The researcher controlled neither the time or date of the library visits. Participants were simply asked to pretend that they needed the article for a research project at school or work and to act as they would in a real situation. A random follow-up with 10 participants of this study indicated both the log and instructions were clear and easy to understand.

In addition to the modified SERVQUAL instrument and the client log, a number of questions were added based on other research in both the business and management and the library and information studies literature. The added questions were as follows:

- an open question relating to satisfaction as suggested by Bitner (1990),
- a question relating to the Gap Model of Service Quality that asked how the service compared to what had been expected as reported in Churchill and Surprenant (1982),
- a question relating to the proxy's willingness to recommend the service to others and return to the library again (Durrance 1989), and
- a question relating to an overall rating of the quality of service they received as done by Parasuraman et al. (1988).

All parts of the research instrument were color coded for clarification and ease of use by the participants.

Journal Variable

In addition to the service quality assessment, all libraries in the study were tested on their ability to find and locate the same journal. As a way of controlling the journal variable, each proxy client was asked to request an article from the same journal (see Appendix A for citations). Several articles were chosen from a science journal not currently available at any of the libraries. The journal was available only through CISTI, a national information provider of science and technology materials.

Hébert (1993) used four fabricated monograph publications. Two were sent to the National Library of Canada and entered into the DOBIS database. The other two were catalogued by the University of Toronto and entered into the university's automated system and from there to UTLAS. A journal article was chosen for this study over a book for several reasons. First, the fabrication of items was complex and time consuming and went beyond the resources of this study. Second, academic libraries tend to receive more requests for articles than books over all requests in a given year (James 1998). Using an article from an actual journal was less artificial. One interesting occurrence during the study actually illustrated this fact. A participant used the article for his own research. He indicated that it was unlikely that he would have discovered this article because it was in a journal not normally used in his field of research.

One test library did have access to the journal on campus but through a library that was not affiliated with the test library. The participants were asked if they would go across campus to get the journal from the stacks but indicated that they would rather complete their requests through the interlibrary loan service. Participants did not have privileges at the library across campus and would have had to pay for the transaction in either case. Data from this university was used in the study because the request was made through the interlibrary loan department.

Selection of Test Libraries

Because of the unobtrusive methodology, permission of the test libraries was not sought. Test libraries were chosen based on the following criteria:

- Academic institutions in Canada that a) emphasize research and graduate instruction at the doctoral level, b) grant their own degrees, and c) support large, broadly based, comprehensive research collections on a permanent basis;

- Academic institutions that hold memberships in the Association of Research Libraries and/or the Association of College and Research Libraries and/or the Canadian Association of Research Libraries;
- Academic institutions that participate in programs of resource sharing of all types that include the use of electronic resources, access to major bibliographic networks, participation in consortia and the provision of interlibrary loan service and/or document delivery;
- Academic institutions that offer at the minimal level an undergraduate science program.

As in Hébert (1993), the number of test libraries was limited because of the complexities of the unobtrusive methodology. A larger sample would have gone beyond the resources available for this research project. As the study was exploratory and intended for use as a benchmark for future service quality assessments, the selection of test libraries was national in scope and not limited to specific geographic regions. To ensure the anonymity and confidentiality of institutions involved in the study, test libraries are not listed.

Of the 17 academic libraries chosen as test libraries, only 15 participated in the study. At one university, the library administration was alerted to the study and it was felt that the results from the library transaction might have been biased. In another case, the journal used for the study was available from the library stacks, thereby eliminating the library from the study. At another university, the first set of participants refused to participate because they had a concern about the unobtrusive methodology even though the intermediary explained in clear language that individual libraries were not being assessed or evaluated. Another intermediary was contacted, new participants were found, and data collected from this university were used in the study.

Data Collection

Once each participant agreed to take part, they were sent by mail a research package and asked to rank the dimensions of service quality by degree of importance. At the same time, they were given the modified SERVQUAL instrument and asked to complete the measures of expectation of the services offered by an excellent academic library. When completed, each participant was asked to send the data directly by mail to the researcher before starting the next part of the project. This prevented the participants from comparing their answers to the expectation component of the SERVQUAL instrument. They were then asked to complete the next section of the project.

Included in this second section were detailed instructions for a visit to an academic library, the client log, and the perception section of the SERVQUAL instrument. At the library, each proxy client was asked to make an interlibrary loan request of an article from a journal that the library did not have. They were asked to record relevant dates for their contacts with the library and to document their experiences. This information was crucial in calculating fill rates and turnaround time and provided anecdotal information about their experience. When the interlibrary loan request was filled, participants were asked to complete the matching perception statements of the modified SERVQUAL instrument and return all of the information directly to the researcher. In cases where the request was not filled, participants were asked to document the reasons given and then asked to complete the perception statements of the SERVQUAL instrument and return all of the information to the researcher.

Data were collected over a one-year period. It was considerably longer than anticipated in the original proposal. On average, from the first mail out to the receipt of the client log and the perception statements, a single transaction took three to four months to complete. A mail strike and one of Canada's worst winter storms in central Canada did not help or speed up the process. As it turned out, in most cases, participants from the same test library made their requests at widely different times throughout the year and it is unlikely that suspicions were raised in any library about the requests made for this research project.

In two libraries, however, staff at the library indicated that they had received a number of requests for the articles even though two different articles were used. In one case, the staff member at the library gave the name of the individual who had received the article and suggested that they get in touch with this person as it would be cheaper to photocopy the article than to receive it through interlibrary loan. In all cases, participants made their own request indicating that they did not feel comfortable asking another student/researcher for a copy of their article.

Analysis of the Data

The SERVQUAL surveys and the additional questions asked for each of the 54 participants were coded and entered into a datafile for analysis on SPSS version 8.0 (see Appendix C for the data structure). Frequency distributions were generated for all coded variables. Cross tabulations of selected variables were also generated and correlation coefficients were calculated between selected variables.

Previous studies have treated the rating scales of the SERVQUAL instrument (both the expectation and perception matching statements) as interval measurement levels even though statistically they are ordinal level variables. This study also treated the rating scales at interval level measures and reported all measures of central tendency as well as the standard deviation.

Written comments provided by participants on several questions were reviewed and recorded on a case by case basis (see Appendix E for participant comments). The written comments by respondents provided descriptive and illustrative information that otherwise would not have been available. The comments also provided the researcher with a better sense and understanding of participant experiences.

Chapter IV

Research Findings

Over 200 prospective participants were contacted for this study, of whom 121 agreed to take part. Of these 121, 54 completed all of the tasks required. They first answered the expectation section of the modified SERVQUAL instrument, then visited an academic library to make an interlibrary loan request, documented their experiences in the client log, and completed the modified perception section of the SERVQUAL instrument.

The study findings are presented below in four parts, corresponding to the data collection process. The parts are:

1. Characteristics of Participants (proxy clients)
2. Participant Expectations
3. Participant Experiences
4. Participant Perceptions.

Characteristics of Participants (Proxy clients)

Participants were asked to provide information that would help determine typical characteristics of those in the study sample. Specific characteristics were gender, age, and the level of previous experience with the library.

Participant characteristics of gender and age were noted in order to determine whether these variables affected the service experience. Study participants consisted of 34 females, 63 per cent of the total sample size and 20 males, or 37 per cent of participants. A chi-square of the relationship between gender and fill rate was performed. This statistical test confirmed that gender was not an antecedent variable significantly affecting fill rate ($p<.01$). Two independent t-tests of the relationship between age and fill rate, and of the relationship between gender and turnaround time were also performed. These statistical tests confirmed that age was not an antecedent variable significantly affecting the fill rate (p<.01) nor was gender an antecedent variable significantly affecting the turnaround time for the interlibrary loan service in this study (p<.01).

Study participants reported a mean age of 31 years old with a standard deviation of 10. The median age was 28 and the mode 23. Participants ranged in age from 19 to 57 with the majority of participants falling between the ages of 21 and 41. The positively skewed distribution seen in this study reflects the typical age range of clients for an academic library where undergraduates, graduates and faculty are represented (Macleans 1998).

An in-depth review of participants' written comments appeared to suggest that age might have played a role in the speed of delivery. Older participants, largely faculty and graduate students, were generally called directly and more promptly than younger participants who were largely undergraduate students. In fact, younger participants were expected in many cases to call the library to see if their request had been filled.

However, this perception was not supported by statistical analysis. A Pearson's correlation test of age and turnaround time showed that the relationship was not significant (p<.01). Nor was age related to the actual fill rate. A t-test of age and fill rate showed no significant relationship (p<.01).

All participants reported that they had used an academic library within the previous twelve month as stipulated in the criteria for participation in the study. Table 1 summarizes the previous library and interlibrary loan experience of participants.

Table 1. Previous Library Experience

Past Experience	Yes		No		No Response	Total
	Number	Percent	Number	Percent		
Have you been to an academic library in the last 12 months?	54	100%	0	0%	0	54
Have you ever requested an item through interlibrary loan from an academic library?	35	65%	18	33%	1	54
Have you ever requested an item through ILL from another library, for example, a public or special library?	17	31%	36	67%	1	54

The table shows that 35 of the 54 participants (65 per cent) had used an interlibrary loan service in an academic library and that 17 (31 per cent) had used an interlibrary loan service in a public or special library. Because the majority of participants had at least one previous experience upon which to base their expectations of this service, it is likely that the SERVQUAL expectation ratings are more reliable than would have been the case if the overall prior experience level had been lower. In Hébert's (1993) study, for example, only 46 per cent of the participants had a previous experience with interlibrary loan service, and she discovered a wider gap between the expectations and perceptions of service than was found in this study. It is likely, therefore, that past experience played a role in the results of this study.

Participant Expectations

Clients assess service quality by comparing the service they receive with the service they expect or desire (Berry et al. 1990). Client expectations in this study were measured using parts one and two of the modified SERVQUAL instrument. Participants were first asked to rank, according to importance, a series of statements that represented five different service dimensions, with one being the most important and five the least important. These service dimensions have been identified in other studies as key to client evaluations of service and represent the criteria by which clients judge a given service.

Participant rankings for this study were as follows:

1st – reliability, as represented by the statement "the ability of the library to perform the promised service dependably and accurately" was ranked as most important;

2nd – responsiveness, as represented by the statement "the willingness of the library to help clients and provide prompt service" was ranked second;

3rd – assurances, as represented by the statement "the knowledge and courtesy of the library's employees and their ability to convey trust and confidence" ranked third most important to service excellence;

4th – empathy, as represented by the statement "the caring, individualized attention the library provides its clients" was ranked as fourth most important; and

5th – tangibility, as represented by the statement "the appearance of the library's physical facilities, equipment, personnel and communication materials" ranked as least important to excellent service.

Participants were also asked to divide 100 points among the features to indicate the importance of each feature in relation to the others. The feature ranked most important should have the most points, and the feature ranked fifth should have the least points. Table 2 summarizes the weightings and compares them to those in Hébert's (1993) study and in other studies in the private sector.

Table 2. Relative Importance of Service Dimensions for Participant Expectations.

Dimension	**This Study (n=54)**	**Hébert's Study (n=130)**	**Other Studies* (n=1936)**
Reliability	36%	35%	32%
Responsiveness	23	20	22
Assurance	19	19	19
Empathy	12	14	16
Tangibles	10	12	11
Total	100%	100%	100%

* private sector studies as reported in Hébert (1993).

Table 2 shows that participants' rank ordered weightings of the five SERVQUAL service dimensions was the same in this study as in Hébert's (1993) study and in five surveys of clients in the U.S. banking, insurance and telephone sectors. The table also shows that the relative importance of each service dimension was similar across all studies.

In addition to assessments of the overall importance of the various dimensions of service quality, participants were also asked to complete the modified SERVQUAL expectation instrument. The instrument provides for a rating of 22 statements relating to the provision of excellent service quality in an academic library. Ratings are obtained using a seven-point Likert scale, with one indicating strong disagreement with the statement and seven indicating strong agreement with the statement. A mean rating for all participants was calculated for each statement together with an overall mean rating for the 22 statements.

Table 3 shows the mean expectation rating of all 54 participants for each statement as well as their median and modal ratings. The statements are rank ordered according to descending mean ratings.

Table 3. Participant SERVQUAL Expectation Ratings (n=54)

SERVQUAL Dimension	SERVQUAL Expectation Statement	Mean Rating	Median	Mode	Standard Deviation
Reliability	5. When excellent libraries' ILL unit promises to do something by a certain time, they will do so.	6.4	7	7	.7
Reliability	6. When a client has a problem excellent libraries' ILL units will show a sincere interest in solving	6.4	7	7	.9
Responsiveness	12. Employees in excellent libraries' will always be willing to help	6.4	7	7	.8
Assurance	17. Employees in excellent libraries' ILL units will have the knowledge to answer client questions	6.4	7	7	.7
Reliability	8. Excellent libraries will provide ILL services at the time they promise to do so	6.3	7	7	.9
Reliability	7. Excellent libraries will perform ILL services right the first time	6.3	7	7	.9
Responsiveness	11. Excellent libraries will give prompt ILL services to clients	6.3	6.5	7	.8
Assurance	15. Clients of excellent libraries will feel safe in their ILL transaction	5.9	6	7	1.1
Reliability	9. Excellent libraries' ILL units will insist on error free records	5.8	6	7	1.0
Assurance	18. Excellent libraries' ILL units will give clients individual attention	5.8	6	7	1.1
Empathy	22. The employees of excellent libraries' ILL units will understand the specific needs of their clients	5.8	6	6	.9
Assurance	16. Employees in excellent libraries' ILL units will be courteous with client	5.7	6	7	1.2
Empathy	21. Excellent libraries' ILL units will have the client's best interests at heart	5.7	6	7	1.2
Responsiveness	10. Employees in excellent libraries tell clients when services will be performed	5.6	6	7	1.3
Assurance	14. The behaviour of employees in excellent libraries' ILL units will instill confidence in clients	5.5	6	5	1.0
Responsiveness	13. Employees in excellent libraries' ILL units will never be too busy to respond to clients' requests	5.4	5	5	1.1
Empathy	20. Excellent libraries' ILL units will have employees who give personal attention	5.4	5	5	1.1
Empathy	19. Excellent libraries' ILL units have operating hours convenient to clients	5.2	5	5	1.4
Tangibles	4. Materials associated with ILL will be visually appealing in an excellent library	3.6	4	5	1.6
Tangibles	3. Employees at excellent libraries' ILL units will be near appearing	3.2	3	2	1.5
Tangibles	1. Excellent libraries' ILL units will have modern looking equipment	3.1	3	3	1.5
Tangibles	2. The physical facilities at excellent libraries will be visually appealing	2.8	3	2	1.3
	Overall Mean SERVQUAL Expectation Rating	5.4			

Table 3 shows that participants in this study had moderately positive expectations of interlibrary loan service quality. Their overall mean rating for the 22 statements on the modified SERVQUAL scale was 5.4 on the seven-point scale. Expectations ranged from a high of 6.4 on some aspects of reliability and responsiveness to lows of less than 3.6 on all aspects of tangibility.

The table also shows that participants expressed less variation in their perceptions of the importance of the higher rated aspects of service quality (SD <1.0 in ratings for the seven highest statements). At the same time, there was considerably more variation in participant attitudes towards those aspects that they gave low ratings to (SD 1.3-1.6 on five lowest statements). Table 3 shows that participants had very high expectations of seven aspects of interlibrary loan quality:

- Keeping promises
- Solving problems
- Willingness to help
- Knowledgeable staff
- Service promises
- Service right first time
- Prompt service.

It is interesting that four of the seven highest ratings of service expectations related to the reliability service dimension whereas clearly all of the lowest rated statements related to tangibles, a service dimension used to describe the physical environment of the service provider. This relates well to the ranking of dimensions displayed in Table 2 where reliability was ranked as most important to the provision of excellent service and tangibles ranked as least important.

The overall mean expectation rating of 5.4 for this study is high when compared to other service sector studies. The expectation ratings of these studies ranged from 4.5 to 5.5 (Parasuraman et al. 1991). However, the mean rating found in this study is consistent with expectation ratings found in other library studies, 5.2 in Hébert (1993) and 5.1 in Nitecki (1998). The higher expectations seen in these library studies may, however, be unrealistic. Hébert (1993) has suggested that the "cultural and educational role of library institutions in society can create a 'halo effect' that may cause clients to think highly of libraries whether or not they actually use them and whether or not their service requests are actually fulfilled" (106).

Available research now suggests that client expectations of service can be influenced by external factors such as word-of-mouth recommendations, explicit service promises, and past experience (Richins 1983; Brown and Reingen 1987; Herr et al. 1991). It is conceivable then that the perceived "goodness" of library institutions alluded to by Buckland (1988), and Childers and Van House (1993) could have an intervening effect on expectations for library service. Parasuraman et al. (1991) have further refined their expectation model to include predicted and adequate levels of service. They suggest that the two levels are separated by a zone of tolerance that varies across clients, and expands and contracts for the same client. For example, service promises such as "when the article will arrive" can influence the perceived level of adequate service if the article comes in before the promised time or after. Adequate levels of service are also influenced to a degree by the client's predicted level of service.

In addition to rating the SERVQUAL expectation statements, participants were asked to list other features that they felt were important in an excellent academic library. Twenty-nine of the 54 participants (54 per cent) provided comments to this open-ended question. A full description of participant comments can be found in Appendix E. Selected comments were as follows:

- "A choice of places (i.e., smaller library sites) on campus to drop off or pick up ILL requests would be helpful."
- "It would be useful if I could also access the local public libraries as well. This would save the ILL department some time and money."
- "I don't feel that the employees need to have all the information at their fingertips, but a willingness to find out is much appreciated."
- If the librarians are not sure when the item will be available, they should be honest and say so. They should also keep their promises. Prompt notice of incoming materials is also important.

- “I feel the quality of ILL staff is only as good as the part-time staff. In my experience, inferior quality service is all that is available on weekends. I do not have access to ILL during regular hours.

- “I am more concerned with getting the requested materials promptly than with politeness or appearance of the employees.”

- “There should be enough staff to help students during busy hours.”

- “I think it is important to have as many resources available as possible on hand and those that are not should be available through an interlibrary loan system with as little fuss and as prompt service as possible.”

Participant comments are summarized below according to the five service dimensions. Some participants mentioned several features within their comments.

Comments	**Number of Responses**
Reliability	
• reliable/prompt service	7
• keep service promises	3
• solve problems	1
• error free records	1
Responsiveness	
• efficient staff	6
• individual attention	3
Assurance	
• ability to locate information	5
• knowledge to answer questions	4
Empathy	
• convenient hours	5
• prompt notification methods	5
• understand needs of clients	1

Tangibles

access to materials	10
good collections	10
quiet surroundings	3
computers/new technology	2

Participant Experiences

After participants in the study submitted their interlibrary loan requests, they were asked to provide details and comments on their actual experiences with the services provided and the staff encountered. Each participant was asked to record the date of his/her initial visit to the library, the date of their request, and the date the library informed them that the article had arrived. The date of the request and subsequent contact determined the fill rate and turnaround time for the study.

First Visit to Library

No day or time was specified in the instructions for the visit to the library but study participants were asked to record the time of their initial contact in order to determine possible influences or bias that might have affected the quality of service received. Some initial contacts were made with staff at either the information or reference desks. Other initial contacts were made directly with staff at the interlibrary loan office. Table 4 shows the patterns of their first visits to each test library, by month.

Table 4. Participant Visit Dispersion Patterns (n=54)

Library	'97 Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	'98 Jan	Feb	Mar	Total
1		1			1		1						3
2	1		1			1						1	4
3					1		1	1					3
4								1	1	1	1		4
5										1	3		4
6				1	2					1			4
7		1	2								1		4
8			1							1	2		4
9											4		4
10										2	2		4
11											4		4
12											2	1	3
13											1	1	2
14											1	2	3
15										2	2		4

As shown in Table 4 data were collected over a one-year period, which was considerably longer than anticipated in the original proposal. A mail strike in November 1997 and one of the worst winter storms in central Canada in January 1998 did not help speed up the process of data collection. As indicated in the table, the requests were fairly evenly distributed through out the year. An in-depth review of the data from three test libraries (#3, #9, and #11) showed that the times of day and days of the week were spread out and not likely to have aroused suspicion among library staff. In addition, two different articles were used in the requests described above.

A follow up with some of the participants from test libraries (#3, #9, and #11) also indicated that time of visit was not an issue in the quality of service received. They indicated that they did not have any reason to think that the library staff knew they were participants in a research project. In one instance, several library staff members did mention that there were a few other requests for the article. It may be that staff members only mentioned it because they felt they were being more efficient although there is no evidence to support this. They also suggested that participants contact the other client directly.

Interlibrary Loan Requests

The reference interview is particularly important in determining the information needs of clients. Specific questions need to be asked, for example, client time constraints or cost sensitivities, in order to ensure a clients' needs are met. Table 5 shows whether staff in each library asked participants important questions about their interlibrary loan request.

Table 5. Questions that Library Staff Asked Participants (n=54)

Questions Asked At Time of Request	Yes		No	
	Number	Per Cent	Number	Per Cent
...By what date you need this article	29	54%	25	46%
...If you are willing to pay a charge	24	44%	30	56%
...If you have a library card or are otherwise entitled to this service	21	39%	33	61%
....If you have checked the library catalogue	28	52%	26	48%
...If you have looked in another library	4	7%	50	93%
...If you would go to another library	6	11%	48	89%
...How to contact you when article arrives	30	56%	24	44%

Just over half of the participants were asked by what date the article was needed. Approximately, four out of 10 were asked whether they were willing to pay a charge for this service. Although most participants indicated that they did know that there might be a charge for this service, some also indicated that if they had not been part of the study they would have found it to be too expensive. In one library, for example, the charge for the service was 8 dollars. Twenty-one of the 54 participants (39 per cent) were asked whether they were entitled to this service but this occurred in most cases only in the interlibrary loans office and not at the library information desk.

However, only four of the 54 participants (7 per cent) were asked if they had looked in another library for the article and only six of the 54 (11 per cent) were asked if they would go to another library for the article. Going to another library, as one participant noted, would likely save the first library time and money while still satisfying the client's information needs. Many participants also suggested that, if on-line access to other library collections was made available, they would be happy to go to another library to pick up the information they needed.

Interlibrary Loan Requests: Accepted and Refused

Four of the 54 requests made at the interlibrary loan office at the test libraries were refused. Three of these four refusals occurred at the same library. The explanations that were given by library staff for not accepting the requests varied, but all were based on the claim that the client was not eligible for the service. In one case, the client had just graduated and was two days over the library-imposed deadline. The client logs indicated a possible differential in service between the staff at the information desk and staff at the interlibrary loan office. While almost all participants who made comments pointed to the willingness of the staff at the information desks to help, the client logs also commented on the unwillingness of the staff in the interlibrary loan office to help.

Many participants provided comments in their logs after the first visit to the library. Those comments are summarized below, indicating that, overall, participants found the staff to be friendly and helpful and the service prompt.

Positive Comments	*Number of Responses*
• Staff friendly/helpful	21
• Prompt Service	8
• Staff efficient	5
• Staff understood needs	4

Negative Comments

Inefficient service	5
Staff did not understand needs	4
Staff reluctant to fill request	4
Staff unfriendly/not helpful	3

Library/Participant Contacts

Participants were asked to record the method of contact used by the library staff to alert them to the arrival of their interlibrary loan request. Table 6 summarizes these methods.

Table 6. Methods of Contact by Library Staff (n=54)

Method of Contact	Frequency	Per Cent
E-mail notification	16	30%
Telephone notification	15	28
Mailed article without notification	12	22
No contact	11	20
Total	54	100%

E-mail and telephone were the most common methods of contact used by staff in the test libraries. E-mail contacts accounted for 30 per cent of the total direct contacts made and the telephone slightly lower at 28 per cent. According to the client logs, some participants were surprised that the library staff phoned them directly. Many participants indicated that the telephone is a preferred method of contact in terms of convenience. Those who were contacted by e-mail indicated that while this method was very efficient, they also cautioned that they did not always look at their e-mail on a regular basis.

The library staff did not contact 23 of the 54 participants when their articles arrived at the library interlibrary loan office. However, in half of these instances, the article was mailed directly to the participants. Participants in their client logs indicated that this was a convenient approach in some cases but that, if they had really needed the article, it would not have been acceptable. They suggested that it would be more expedient to call and let them know that the article had arrived and was ready for pick-up.

It was confirmed through a follow-up telephone call with staff at some of the test libraries that it is their policy not to inform undergraduates that their requests have arrived but to expect them to call the library. It was clear from client logs that this had never been explained to participants when they made their original initial requests. In many of these cases, participants had to phone the library to see where their article was. The logs indicated some dissatisfaction with the differential service between undergraduates and others.

At the time of pick-up, participants were also asked to record whether or not there was a charge for the interlibrary loan request. Table 7 summarizes the actual charges for the service and compares this with whether the participants had initially been told there would be a charge.

Table 7. Pick-up of requested article (n=44)*

Question	Yes	No	No Response
Was there a charge for the article?	28	16	0
Did the library tell you there would be a charge?	20	8	16

*10 requests were not filled.

The table indicates that there was a charge for the interlibrary loan service for 28 out of the 44 requests filled (64 per cent). Of those 28, only 20 participants (71 per cent) were told there would be a charge, while eight (21 per cent) found out only when they picked up the article. The charge for interlibrary loan service ranged from one to eight dollars, with an average cost per transaction of four dollars.

Those who were not charged for interlibrary loan service, however, did indicate that the library was charged for the service but that the cost was not passed on to the client. Over half of the test libraries did not charge their clients for this service. Although participants were only asked to use regular interlibrary loan service, some participants mentioned that there was a considerable charge for rush service. This service was specifically for those wanting a 24 to 48 hour turnaround time.

Fill Rate

The fill rate, sometimes called the "success rate" (Waldhart 1985) or the "satisfaction rate" (Van House 1987; D'Elia and Rodgers 1996), refers to the percentage of interlibrary loan requests that were filled successfully. Of the 54 requests for interlibrary loan made in this study, 10 or 18 per cent were not filled, and 44 or 82 per cent were successfully filled. This fill rate compares favourably with the fill rate of 85 per cent reported in a recent study of 119 research and college libraries in Canada and the United States that was conducted by the Association for Research Libraries (Jackson 1997). The range of fill rates in that study was from 75 to 93 per cent. Interestingly, the study showed that there was only one research library in the top 10 per cent, with the remainder of top performers being college libraries.

Turnaround Time

The turnaround time for an interlibrary loan transaction was calculated by computing the total calendar days between the date the article was requested and the date the participant was notified that the article had arrived. This conforms to the output measure suggested for interlibrary loan by Van House et al. (1990) and the Association of Research Libraries (1997). In those instances where participants received the article directly by mail, the date of receipt was used to calculate the turnaround time. Table 8 summarizes the turnaround time by number of calendar days for this study.

Table 8. Library Turnaround Time in Calendar Days (n=44)

	Requests		
Calendar Days	**Number**	**Percentage**	**Cumulative Percentage**
1-10	20	46%	46%
11-20	16	37	83
21-30	4	9	92
31-40	2	4	96
41-50	-	-	-
51-60	-	-	-
61-70	-	-	-
71-80	-	-	-
81-90	1	3	98
91-100	-	-	-
101-110	1	3	100%
	44	100	

The mean turnaround time for all interlibrary loan requests was 13 calendar days. Times ranged from one to 103 days with a standard deviation of 18 indicating a large degree of variability in turnaround time among the test libraries. What is interesting is that the journal used for this study was directly available from CISTI, an organization that guarantees a two to three working day turnaround time. Consequently, there would appear to be an administrative delay in each of the test libraries in either processing the request or in contacting the clients making the request. This, in fact, seemed to be the case with a few of the participants whose logs indicated that in some cases their article had not been ordered for up to two weeks after the initial request had been made.

The turnaround time in this study was slightly better than the turnaround time reported in the study mentioned above by the Association of Research Libraries (Jackson 1997). That study reported an average turnaround time of 15 calendar days for non-returnables in academic libraries and 10 days in college libraries. Typically, it took the libraries four days to send a request to the first potential supplier, 11 days to receive the article, and one day to notify the patron (Jackson 1997, 2).

Childers (1991) reports that provisions governing interlibrary loan service performance in the California State Library Act have been used as an informal guideline for many libraries in the past. These provisions suggest that 70 per cent of all interlibrary loan requests made in an academic library should be filled within 10 days. The standards public libraries suggest that 35 per cent of all requests should be filled within seven days and 70 per cent within 30 days (Waldhart 1985).

In comparison to these two sets of guidelines, the average turnaround time for this study is not very satisfactory. It should be noted, however, that guidelines for interlibrary loan turnaround time vary among institutions and that no formal standards exist for interlibrary loan fill rates and turnaround times in academic libraries. In recognition of these deficiencies, the Association of Research Libraries will be recommending that academic libraries adopt, as a minimum standard, the fill rate and turnaround time averages reported in its 1997 study as standards for interlibrary loan requests (Jackson 1998).

Participant Comments on Pick up of Requested Articles

In addition to recording the date of their initial request and the date of library contact, if any, participants were also asked to record their experiences during the pick up of the article from the interlibrary loan office. Forty-nine of the 54 participants (90 per cent) provided comments in their logs. Detailed participant comments are provided in Appendix E. Selected comments are summarized below:

- "The transaction went pretty smoothly, although I was informed I was lucky to get the photocopies."
- "Usually the library is very expedient in its service ... this was the first time I had the experience that it took so long."

- "I did feel they pushed the new way (electronic ordering) a little too quickly...perhaps they should have waited 'til my next request. It is a little annoying that I kept having to phone them...others that I have dealt with have usually contacted me regarding problems, etc."

- "I was pleasantly surprised at how quickly the ILL got the article, how knowledgeable they were and how non-threatening the whole experience was."

- "The article arrived two days after making the request which I thought was very helpful of them to get it so quickly."

- "She was an unkind person...I felt as if she was doing me a favour...it was okay service but the personal approach of the employees was much worse than I expected...I feel satisfied since they found the article fast...but I'm dissatisfied with the way they approached me."

Participant Perceptions

After participants had completed parts one and two of the modified SERVQUAL instrument and the client log, they were asked to complete part four of the modified SERVQUAL instrument which provides for the rating of 22 statements relating to actual service experience. These statements match one of the 22 expectation statements and use the same seven-point Likert scale. Overall perceptions of service performance were measured by calculating the mean ratings of the 22 SERVQUAL perception statements as well as an aggregate rating. Service gaps (disconfirmations) were then computed by comparing expectations and perceptions on the 22 statements. This part of the survey included other overall measures of quality as well as an open-ended question relating to how satisfying the experience had been.

It should be noted that of the 54 participants in this study, only 44 had their requests filled. The 10 participants whose requests were not filled still rated their perceptions of service using the modified SERVQUAL instrument and answering the questions about disconfirmation, willingness to recommend, satisfaction and attitude toward the library. Receiving the information is not the only measure of performance used by the participants in this study. How participants were responded to was in some cases even more important than receiving the information. Participants wanted to know that the interlibrary loan staff had done everything they could to find the required information. They wanted to feel a part of the process and wanted to be informed about the progress of their request. This conforms well to the results of a recent study of service satisfaction by D'Elia and Rodgers (1996).

The qualitative data supplied by participants' support this. Participants whose requests were not filled showed an overall sense of satisfaction with their transaction, particularly if they felt the staff tried to meet their needs. Participant comments suggested that while they were disappointed that the article was not found, they also commented on the willingness and helpfulness of the staff. The SERVQUAL perception ratings for these libraries were not lower than were those for libraries in which the requests were filled --as might be expected if the only participant measure of performance was a filled request.

The only exceptions to this were two of the four participants whose requests were initially refused. These participants were in fact eligible for service but were refused because they were in the arts faculty and their requests were for a science journal. The comments of these two participants clearly showed that they felt staff were not responding to their needs, were not helpful, and were too rigid in enforcing their policies. Their perception ratings also reflected these negative messages.

Table 9 below shows that participants in this study had only slightly positive perceptions of the quality of their interlibrary loan service experiences. The overall mean ratings for the 22 statements on the SERVQUAL scale was 4.8 on the seven-point scale. Perceptions of performance ranged from a high of 5.5 to a low of 3.8. The mean rating for performance was somewhat lower than the mean rating for expectations, 4.8 compared to 5.4.

Table 9 shows the mean perception ratings of all 54 participants for each statement as well as their median and modal ratings. The statements are rank ordered according to descending mean ratings.

Table 9. Participant SERVQUAL Perception Ratings (n=54)

SERVQUAL Dimension	SERVQUAL Perception Statements	Mean Rating	Median	Mode	Standard Deviation
Assurance	15. You feel safe in your ILL transaction with this library	5.5	6	6	1.6
Reliability	7. This library performs ILL services right the first time	5.3	6	6	1.7
Assurance	16. Employees of this library are consistently courteous with you	5.3	6	6	1.5
Assurance	17. Employees of this library's ILL unit have the knowledge to answer your questions	5.2	6	6	1.4
Assurance	18. This library's ILL unit gives you individual attention	5.2	6	6	1.4
Reliability	8. This library provides ILL service in the time it promises to do	5.1	5.5	6	1.6
Responsiveness	11. Employees of this library's ILL unit give you prompt ILL service	5.0	6	6	1.7
Empathy	20. This library's ILL unit has employees who give you personal attention	5.0	5	6	1.6
Tangibles	3. This library's ILL unit employees are neat appearing	5.0	5	6	1.2
Reliability	6. When an ILL client has a problem, this library shows a sincere interest in solving it	4.9	5	5	1.6
Responsiveness	12. Employees of this library's ILL unit are always willing to help you	4.9	6	6	1.7
Assurance	14. The behaviour of employees of this library's ILL unit instill confidence in clients	4.9	5	5	1.5
Empathy	21. This library's ILL unit has your best interests at heart	4.9	6	6	1.7
Reliability	5. When this library's ILL unit promises to do something by a certain time, it does	4.8	5	4	1.8
Responsiveness	13. Employees of this library's ILL unit are never too busy to respond to your request	4.7	6	5	1.6
Tangibles	1. This library's ILL unit has modern looking equipment	4.6	5	4	1.6
Reliability	9. This library's ILL unit insists on error-free records	4.5	4	4	1.9
Empathy	22. Employees of this library's ILL unit understand your specific needs	4.5	5	4	1.4
Empathy	19. This library's ILL unit has operating hours convenient to you	4.3	5	5	1.8
Tangibles	2. This library's ILL units physical facilities are visually appealing	4.2	5	4	1.4
Tangibles	4. Materials associated with this ILL services are visually appealing at this library	3.9	4	5	1.6
Responsiveness	10. Employees of this library tell clients exactly when the ILL services will be performed	3.8	4	4	1.7
	Mean SERVQUAL Perception Rating	**4.8**			

The standard deviation for each perception statement shows a higher variability in participant perception ratings than was shown in the expectation ratings. This suggests greater variability in actual service performance across institutions compared to expectations, with some services being performed better for some participants but much poorer for others.

Rank ordering of the SERVQUAL perception statements shows that the highest ratings by participants related to the library employee's ability to convey trust (5.5) and to be courteous and knowledgeable (5.2), and to provide personal attention (5.2). These statements relate to the assurance service dimension. It is not surprising that most of the elements in the assurance dimension were rated highly, given the service ethic of the library and information services profession and the types of training the staff might be expected to receive.

It is also not surprising that participants gave high ratings to their experience of "service right the first time" (5.3) and "service when promised" (5.1), both elements of the reliability dimension. All but one request out of the 44 that were filled produced the right article and only a very few of the participants were told when they could expect the article to arrive. However, participants were more ambivalent about other reliability measures, rating them between 4.5 and 4.9.

Participants gave their experience of "prompt services" a rating of 3.8, the lowest of all 22 perception ratings. This is a measure of the responsiveness dimension. This low rating may have to do with the fact that only half of the participants were asked when they needed the information and how they should be contacted, questions that are extremely important to the provision of excellent service. The low rating may also have to do with the fact that interlibrary loans units are traditionally staffed by clerical workers who often have less training in the area of client service. A review of the client logs did indicate that the staff in the interlibrary loans offices were less courteous and less willing to help than those on the reference or information desks.

Participant ratings of "convenience of hours" (4.3) warrant some discussion, as there were a number of participant comments in the client logs regarding the inconvenient hours of operation for the interlibrary loan offices. Appendix E provides a full description of participant comments. Hours of operation also showed lower ratings in the other library studies using the SERVQUAL instrument (Hébert 1994; Nitecki 1996). Other studies assessing satisfaction also report issues with library hours suggesting more flexibility may be needed (See Dewdney and Ross 1994; D'Elia and Rodgers 1996).

Participant SERVQUAL Difference Scores

As discussed earlier in the chapter on Methodology, disconfirmation arises from discrepancies between clients' expectations of service and their perceptions of the actual service encounter (Parasuraman et al. 1993). The magnitude and direction of the discomfirmation or the gap are presumed to be related directly to the level of satisfaction or dissatisfaction with a service (Zeithaml et al. 1991). A large negative difference (or gap) score would indicate dissatisfaction with the service. A large positive score would indicate satisfaction.

Disconfirmation is a measure of quality, calculated by subtracting the mean expectation rating for each of the matching SERVQUAL statements from the mean perception rating (Q=P-E). The difference is the mean gap score between SERVQUAL perception and expectation statements. It measures how well services delivered match client expectations and provides indications of the "degree and direction of discrepancies between client service perceptions and expectations" (Nitecki 1996, 186). Managers can use these scores to identify strengths as well as areas for service improvements.

Table 10 shows the mean difference scores ordered for each of the 22 SERVQUAL statements in this study by the magnitude and direction of rating of differences. The table indicates that participants overall expectations of interlibrary loan service were higher than their perceptions of actual interlibrary loan service in Canadian academic libraries.

Table 10. Difference Scores for the SERVQUAL Expectation and Perceptions Ratings

SERVQUAL Dimension	SERVQUAL Statements	Perception Mean Rating	Expectation Mean Rating	Difference/ Gap Score
Tangibles	3. Employees are neat appearing	5.0	3.1	1.9
Tangibles	1. Modern looking equipment	4.6	3.1	1.5
Tangibles	2. Facilities are visually appealing	4.2	2.8	1.4
Tangibles	4. Materials are visually appealing	3.9	3.6	0.3
Assurance	15. You feel safe in your ILL transaction	5.5	5.9	-0.4
Assurance	16. Employees are consistently courteous	5.3	5.7	-0.4
Empathy	20. Library gives personal attention	5.0	5.4	-0.4
Assurance	18. Library gives individual attention	5.2	5.7	-0.5
Assurance	14. Behaviour of employees instills confidence in clients	4.9	5.5	-0.6
Responsiveness	13. Employees never too busy to respond to requests	4.7	5.4	-0.7
Empathy	21. Library has best interests at heart	4.9	5.7	-0.8
Empathy	19. Library has convenient operating hours	4.3	5.1	-0.8
Reliability	7. Library performs ILL services right the first time	5.3	6.3	-1.0
Reliability	8. Library provides service in time promised	5.1	6.3	-1.2
Assurance	17. Employees have knowledge to answer questions	5.2	6.4	-1.2
Responsiveness	11. Employees give prompt service	5.0	6.3	-1.3
Reliability	9. Library insists on error-free records	4.5	5.8	-1.3
Empathy	22. Employees understand specific needs	4.5	5.8	-1.3
Reliability	6. Library shows sincere interest in solving problems	4.9	6.4	-1.5
Reliability	5. Library promises to do something by a certain time and does so	4.9	6.4	-1.5
Responsiveness	12. Employees are willing to help	4.9	6.4	-1.5
Responsiveness	10. Employees tell you exactly when services will be performed	3.8	5.6	-1.8
	Overall Mean Difference or Gap Score	**4.8**	**5.4**	**-0.6**

Table 10 shows that the overall difference score was –0.6, slightly greater than the score of –0.4 that Hébert (1993) found in her study. This difference score suggests that participant expectations in this study were over one-half of a rating unit higher on the seven-point scale than their actual experience of service. In other words, performance did not match expectations. The table indicates unsatisfactory service scores for 18 of the 22 SERVQUAL measures. Negative difference scores ranged from a relatively small gap of –0.4 to a very large gap of –1.8.

The table shows that only the experiences associated with the measure of the tangible service dimension exceeded participant expectations, ranging from a high of +1.9 for employee neatness to +0.3 for visual appearance of materials. Interestingly, the service tangibles were rated by study participants as the least important to the provision of excellent service quality (see Table 2), yet they were the only measures scoring satisfactory ratings among the 22 SERVQUAL measures.

Participants experiences associated with measures of reliability were uniformly unsatisfactory, showing difference scores ranging from -1.0 to -1.5. In fact, the five reliability measures scored among the 10 lowest service measures, with "sincerity of interest in solving problems" and "meeting promised time lines" scoring –1.5 each and tied in 19th place out of 22 measures.

Participants expressed slightly better satisfactory ratings with measures related to the assurance service dimension. It should be noted, however, that all assurance measure were scored negatively, ranging from –0.4 on courtesy and trust to –1.2 on employee knowledge. Measures related to the empathy service dimension also scored uniformly negative ratings ranging from –0.4 to –1.3. Empathy is related to the provision of caring, individualized attention. Of particular concern in this study is the difference score of –1.3 for "employee understanding needs". This represents a large gap in service satisfaction as experienced in this study.

Participant experiences associated with measures of responsiveness were also unsatisfactory. This is not surprising because the responsiveness service dimension is also related to service reliability in many ways. Three of the four responsiveness measures score among the 10 lowest service measures with difference scores ranging from -1.3 to -1.8. The measure of "service promptness" scored lowest of all 22 measures on the SERVQUAL scale. This is also not surprising since virtually none of the 54 participants was told when they could expect the article to arrive. A review of the comments in the client logs indicated strong dissatisfaction with service performance in this specific area. A total of 49 of the 54 (90 per cent) participants provided comments in their logs. Some of those comments were about an aspect of service responsiveness. Their comments are summarized below:

- "They were able to score higher because they grossly over estimate the amount of time it will take."
- "I asked when the article might arrive and they said it would be a week before they could even order it."
- "I was told it would depend on where the article could be located."
- "The transaction went pretty smoothly, although I was informed I was lucky to get the photocopies."

Table 11 summarizes the difference scores for the 22 measures and compares them with the disconfirmation model. The overall pattern of unsatisfactory quality in interlibrary loan service is graphically evident. Clearly, one of the greatest concerns for academic libraries should be the large negative scores in the reliability and responsiveness dimensions of interlibrary loan service quality. Expectations among measures of these service dimensions were rated by participants in this study as most and second most important (see Table 2). It is here that we see the greatest opportunity for service improvement.

Table 11. Difference Scores for SERVQUAL Expectation and Perception Statements Rank Ordered by Score (n=54)

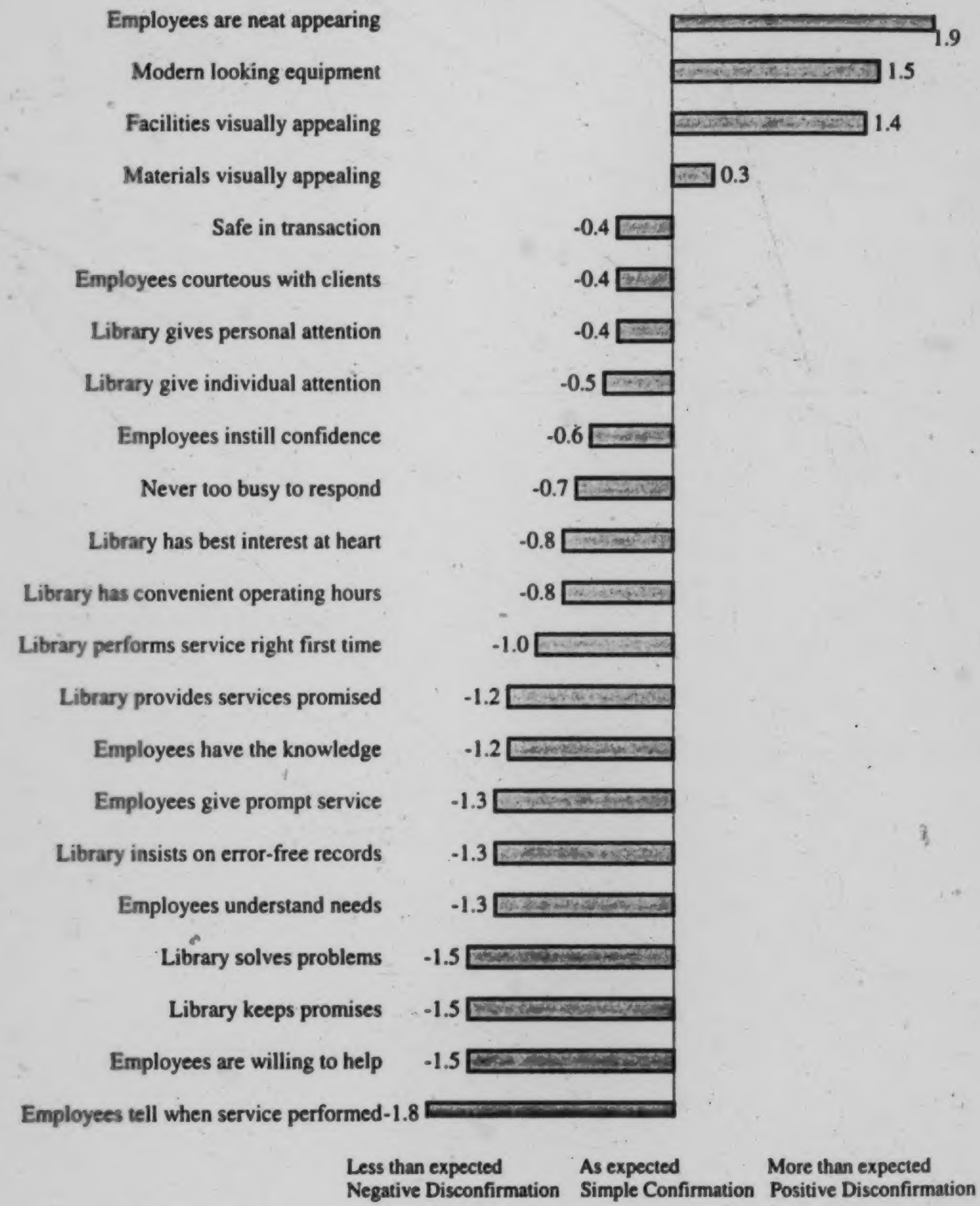

Table 12 compares the difference scores across studies for each of the five dimensions of service quality. Difference scores for each dimension were calculated by averaging the overall mean score by statement. All studies exhibit similar patterns of service quality when measured from the clients' perspective.

Table 12. Comparison of Difference Scores Across Studies

Service Dimension	Rank	This Study n=54	Hébert's Study* N=130	Other Studies* n=1936
Reliability	1	-1.3	-1.0	-1.1
Responsiveness	2	-1.3	-0.9	-0.8
Empathy	4	-0.8	-0.8	-0.7
Assurance	3	-0.6	-0.6	-0.6
Tangibles	5	+1.2	+1.2	+1.2

*calculated in Hébert 1993.

Tangible dimensions exceeded participant expectations in all studies and therefore received an overall positive disconfirmation. One might conclude that, in this service area at least, libraries are providing excellent service. However, participant expectation ratings show a low value placed on measures relating to the tangible service dimension. What this suggests is that it is relatively easy for libraries to outperform expectations in the area.

Individual participants across all studies experienced service that was much less than expected for all other service dimensions (Hébert 1993; Nitecki 1996; Kettinger 1997). Clearly, difference scores in this study for responsiveness and reliability service dimensions suggest large problem areas for academic libraries and are prime targets for service improvements. The larger difference scores in this study for these two dimensions may reflect high participant expectations of academic libraries. Expectation ratings for these service dimensions showed very high mean ratings, 6.2 for reliability and 5.9 for responsiveness.

These expectation ratings conform also to those ratings found in Nitecki (1996). It may be that there is an assumption that interlibrary loan is one of the primary services offered by academic libraries. Academic libraries are also major lenders to college, special and public libraries (Gilmer 1994; Jackson 1997). However, clients of public libraries, such as those in Hébert's study, did not have the same expectations for interlibrary loan service. Public libraries in general do not promote interlibrary loan as a primary service to clients (Waldhart 1985; Hébert 1993). The resulting difference scores for these two service dimensions likely reflect the differences in client expectations between public and academic libraries.

Parasuraman et al. (1991; 1993) have suggested that the responsiveness and reliability dimensions are often conceptualized in similar ways. It may be the case that responsiveness is an antecedent to reliability and that the lack of responsiveness by the staff in the library may also affect the ratings of reliability. More research is needed to determine if in fact this is the case in an academic library.

Direct Participant Measures of Satisfaction

At the end of the study, participants were asked to respond to four global statements that would provide a direct comparison of what actually happened during their interlibrary loan experience with their original expectations of what an excellent service provides. The global measures were:

- a retrospective assessment of the service received (direct disconfirmation),
- overall satisfaction with service received,
- participant willingness to recommend interlibrary loan service to others, and
- participant attitude about the services offered by the academic library.

These measures could then be compared to the computed SERVQUAL ratings and difference scores. Tables 13 summarizes the participant responses to these global measures of satisfaction.

The table shows that the mean rating for three of four global measures was more than 5.0 on seven-point scales. The direct disconfirmation measure elicited a mean rating of 4.4, somewhat similar to the overall mean rating of SERVQUAL perceptions of 4.8.

Table 13. Various Participant Measures of Quality (n=54)

Rating Scale							***Mean***	***Median***
1	**2**	**3**	**4**	**5**	**6**	**7**		
Compared to what you originally expected, the service was... (direct disconfirmation)								
Much Worse						Much Better		
8%	8%	4%	30%	28%	18%	6%	4.4	5.0
Overall you feel...								
Very dissatisfied						Very Satisfied		
4%	4%	9%	9%	22%	33%	18%	5.1	6.0
Based on your experience, would you recommend ILL to a friend...								
Absolutely Not						Yes, Absolutely		
4%	6%	4%	4%	18%	24%	41%	5.6	6.0
What is your overall attitude about the services in this library...								
Very Poor						Excellent		
2%	2%	7%	13%	28%	38%	15%	5.2	5.0

The second global measure, satisfaction with the interlibrary loan experience, yielded a mean rating of 5.1. When compared to the mean SERVQUAL perception rating of 4.8, the rating for satisfaction was slightly higher. This comparison conforms well to the literature that suggests that satisfaction ratings are generally higher than service quality ratings (Parasuraman et al. 1991). These findings also conform to the findings of other studies when difference scores and satisfaction ratings are compared. As the difference score increases towards a positive disconfirmation (where service exceeds expectations), so does the clients' satisfaction level. Again the converse is true. If the difference score decreases towards a negative disconfirmation (where expectations exceed performance of service), so will the overall satisfaction with the library service.

The direct disconfirmation score (4.4) was slightly less than the SERVQUAL perception rating of 4.8. Although, this is a small difference, the discontinuity may be attributed to the "halo effect" described earlier. People impressed or pleased by one quality or service (i.e., friendliness) tend to overestimate other qualities (Seay et al. 1996; Sutherland 1989). In this study, both participant comments and their SERVQUAL performance ratings showed the staff to be friendly and helpful. This likely played a mediating role in overall satisfaction with the interlibrary loan experience.

Bitner (1990) suggests that "causal attributions for poor service (negative disconfirmation) mediate client satisfaction" (71). Clients will often determine the cause of the poor service before they assess their level of satisfaction with the service. If the cause of the poor service is perceived by the client to be out of the control of the service provider, satisfaction ratings are often modified accordingly. Comments from participant logs suggest that this may in fact be the case in this study. Some of those comments follow:

- "depends on where the article is located",
- "it was out of the control of the staff at the library", or
- "usually fast, efficient service...must be because the article is obscure".

These participant comments may provide some explanation for the higher levels of satisfaction with the interlibrary loan experience when compared to service quality ratings. Hebert (1993) has suggested that "similar positive attribution variables may also translate into a greater willingness to recommend the service to others" (103).

Comments from the client logs and from part three (perceptions of service) of the survey help clarify what made participant experiences satisfying or not. Forty-nine of the 54 participants (90 per cent) made comments in their logs and 45 of the 54 (83 per cent) made comments in part three of the survey. Participant comments were coded by whether or not their request was filled and are listed below. The number of responses by participants is provided on the right:

Positive Comments	**Requests Filled**	**Requests Not Filled**
• Staff friendly and helpful	21	2
• Staff efficient	5	
• Prompt service	8	
• Poorer service an exception this time	4	
• Staff understood needs	4	
Negative Comments		
• Request took too long	8	3
• Inefficient service	5	
• Staff reluctant to fill request	4	3
• Staff did not understand needs	4	
• Staff Unfriendly and not helpful	3	
Service Comments based on Library Process		
• Clients should be contacted directly	10	2
• Clients should be told when they will receive article	8	2
• Staff indicated finding article would be difficult	4	
• Hours not convenient	3	
• Clients should get status reports		2
• Inform clients about cost	1	

Clearly, many participants felt that staff were friendly and helpful even when their requests were not filled. Eight participants thought the requests took too long and five believed the service to be inefficient. Ten participants suggested that clients should be contacted when their item came in and eight felt that they should be told when the item would arrive. This was consistent with the difference score for the measure "service promptness", at −1.8 which was the lowest of all scores. Overall, however, participant comments were positive and offered clear service opportunities for the libraries. A complete record of participant comments is provided in Appendix E.

The third global measure, participants' willingness to recommend the interlibrary loan service to others, yielded a mean rating of 5.6. This was the highest of the four measures of overall quality. The client logs provided some insight into this very high recommendation level despite lower perception and difference scores. Many participants indicated that they would only recommend the service because they felt that there was no other option. Some participants further clarified their positions by suggesting that they would ensure that others knew of the longer turnaround time.

Consumer research has shown that both positive and negative word-of-mouth communication can have a significant impact on the attitudes and behavior of clients using a particular service (Brown and Reingren 1987; Herr et al. 1991). These studies report that the opinions of others may be more important than any other factor in determining whether a person uses a particular service or not (Goodman et al. 1992). This supports the notion that smaller gaps in the service quality produce positive word-of-mouth communications helping in many instances to create realistic service expectations. The benefits of enhancing client perceptions of the service provided by interlibrary loan units are numerous and include the communication of that service excellence to others that might use the service.

The fourth measure related to the participant's overall attitudes about the services offered by the library. Participant responses produced a mean rating of 5.2, slightly higher than both the SERVQUAL perception rating for service performance of 4.8 and the global satisfaction rating with the interlibrary loan experience of 5.1. This is consistent with other studies using the SERVQUAL instrument in both the private and public sectors (see Parasuraman et al. 1991; Hébert 1993; Nitecki 1996; Edwards and Browne 1995; Kettinger 1997). In these studies, expectations and attitudes are shown to be closely linked (Parasuraman et al. 1991; Bolton and Drew 1991). It may be that some of the participants did not know what to expect from the service offered and were pleasantly surprised by the service they received even though the service may have been mediocre.

Table 14 summarizes the aggregated mean ratings for the various quality measures: direct disconfirmation (retrospective perception of service received), overall satisfaction, willingness to recommend, and overall attitude. They are consistent with the SERVQUAL expectation and perception ratings computed for this study. All ratings are based on seven-point scales, with one being the lowest rating and seven the highest.

Table 14. Various Participant Measures of Quality (n=54)

Various Quality Measures	**Mean Score**
Direct disconfirmation	4.4
Satisfaction with ILL experience	5.2
Willingness to recommend	5.6
Attitude about library service	5.2
SERVQUAL expectations	5.4
SERVQUAL perceptions	4.8

The literature suggests that there is a strong relationship between the SERVQUAL perception ratings and participants' satisfaction with a given service, their willingness to recommend, and their overall attitude towards the service (Oliver 1981; Zeithaml et al. 1988; Zeithaml 1990; Parasuraman et al. 1991). The relationship among these four measures is also clear in this study with mean ratings falling within 0.2 to 0.4 of each other.

This same literature suggests that direct disconfirmation is similar or related to the SERVQUAL perception ratings. The present study also supports this view: the SERVQUAL perception rating was 4.8 while the direct disconfirmation score was 4.4.

Correlations Among Various Measures of Quality

Correlations were calculated among the various measures of quality to confirm the informal observations discussed above. Table 15 shows the Pearson correlation coefficient between the SERVQUAL expectation, perception and difference scores and the four global measures of quality used in this study, disconfirmation, satisfaction, willingness to recommend, and overall attitude.

Table 15. Correlations Among Various Measures of Quality

Measures of Quality	SERVQUAL Expectation Mean Score	SERVQUAL Perception Mean Score	SERVQUAL Difference Mean Score
Disconfirmation Mean Score	-.180	.654**	.605**
Satisfaction Mean Score	-.265	.764**	.730**
Willingness to Recommend Mean Score	-.313*	.670**	.675**
Overall Attitude Mean Score	.013	.575**	.458**

*p<.05
**p <.01

The table also shows a moderate, negative correlation at the 0.05 level between SERVQUAL expectation mean score and participant willingness to recommend the service to others. This significant correlation is a surprise since in all other studies no significant correlation was found between expectation scores and other measures of quality (Parasuraman et al. 1991; Hébert 1993). Since expectations are tied closely to performance of service, higher expectations are less likely to be met when compared to performance. When used within this service paradigm, it follows that when expectations are not met, there is less willingness to recommend the service to others.

The table shows strong positive correlations between the SERVQUAL perception mean score and all four global measures of quality (p<.01). All of these measures were based on the actual performance of service as experience by a client. The SERVQUAL difference score yielded equally strong positive correlations with these global measures (p<.01).

Summary of Findings

The mean age of the participants in this study was 31 years old with females accounting for just over 60 per cent. All participants said they had used the library within the last 12 months, and 65 per cent had made an interlibrary loan request in an academic library.

The relative importance of the five service dimensions to participants in this study produced similar rankings to those found in other library studies that also use the SERVQUAL instrument as well as those rankings found in the private sector. Reliability was ranked the most important dimension of service quality, followed by responsiveness, assurances, empathy, and tangibles.

The SERVQUAL expectation ratings for this study showed an overall mean score of 5.4 on a seven-point scale. The reliability and responsiveness service dimensions produced the highest overall mean ratings while tangibles produced the lowest.

The SERVQUAL perception ratings for this study showed an overall mean score of 4.8 on a seven-point scale, somewhat below the mean score of 5.4 for expectations. Overall, participants were dissatisfied with measures associated with the reliability and responsiveness service dimensions in the study.

The SERVQUAL difference scores for this study showed an overall negative score of -0.6, indicating that the performance of interlibrary loan service in the test libraries was somewhat lower than participants had expected. The only service dimension receiving a positive difference score was the tangibles element, and this was largely due to lower expectations of the physical features of the interlibrary loan office, of the appearance of the employees, and of communication materials. Again, the reliability and responsiveness service dimensions showed the lowest overall difference scores, indicating large service quality problems in these areas.

The fill rate for this study was 82 per cent and the mean turnaround time was 13 calendar days. Both conform to the overall fill rate and mean turnaround time figures obtained for research libraries in a study recently conducted by the Association of Research Libraries as reported by Jackson (1997).

Significant positive correlations were obtained between the SERVQUAL perception mean score, the SERVQUAL difference mean score and four global measures of service quality used in the study.

Chapter V

Conclusions

The primary objective of this study was to investigate interlibrary loan service in large academic libraries across Canada from the perspective of the client. The study sought to further understand the relationships between performance and outcome measures within the context of measuring interlibrary loan service from the perspectives of both the library and the client. It was anticipated that the findings of this study would be of benefit to academic libraries across the country, to staff who serve library clients, and to the clients using academic libraries.

Traditional vs Client Measures of Performance

The findings presented in this study clearly indicate that there is an incongruence between traditional measures of success used for interlibrary loan service, fill rates and turnaround times, and more recent outcome measures of success from the perspective of the clients. While the fill rates of 82 per cent and the mean turnaround time of 13 calendar days for this study conformed to some informal library standards, the service performance of the interlibrary loan service across all institutions was lower than expected by the participants.

The overall negative difference score of -0.6 indicated that participants were not satisfied with the quality of service they received from interlibrary loan units overall. Based on participant assessments, actual performance of service was lower than expected in every test library and for the majority of the five service dimensions. The findings showed specifically that the reliability and responsiveness service dimensions, ranked as most and second most important to participants in this study, performed the poorest when compared to participant expectations. The tangibility service dimension performed the best when participants compared the performance of service to their expectations.

Knowledge of whether client measures of service quality are congruent with library measures of service quality is important to understanding the relationships between these measures. A gap between client and library measures may indicate that the library is performing to an internal, institutional standard that does not meet the needs of the client. Within the context of this study, it is clear that clients evaluate interlibrary loan service using more criteria than just fill rate and turnaround time. Although these measures are important, there are other measures of service quality that clients use to assess that service.

It is important to acknowledge that the ability of an institution to access materials and provide those services associated with access often depends upon numerous external factors, factors that are often out of the control of the institution. The majority of participants in this study seemed to recognize this fact. What they did not want, however, was an information barrier. While they expected to be able to access the materials they needed quickly and efficiently at the lowest possible cost, it was clear that even more important than fulfilling their requests for information, was that they were acknowledged positively and informed about the progress of their requests. The findings of this study suggest that the participants wanted to know that the library staff were doing everything they could to find the information that was needed. Participants showed a strong willingness to forgive those reliability and responsiveness concerns if reasons for the delays in service were provided, if they were treated with courtesy in all interactions, and if they felt involved in the process.

Clients assess service by comparing the service they receive with the service they desire (Berry et al. 1990). A library can only achieve a strong reputation for excellent service when it consistently meets client service expectations over time. Knowledge of what clients expect is, however, only one part of the challenge of measuring service quality. Actually meeting those expectations is the greatest challenge for academic libraries. The question then becomes, what must every academic library do to manage client expectations and actually improve service delivery?

Incorporating a Client Based Service Philosophy

The library and information studies research has recognized that the provision of quality library service needs more attention (Hernon and McClure 1990; Hébert 1993; White and Abels 1995; Edwards and Browne 1995; Shaughnessy 1996; Nitecki 1996; D'Elia and Rodgers 1996). The results of this study provide a clearer picture of what service quality is within the context of a specific service, interlibrary loan. It offers a valid and standardized instrument by which to measure the construct of service quality from the perspective of the client. The findings also concur with recent research that suggests that service, whether in the private or public sector, is assessed using the same service dimensions (Nitecki 1996; Kettinger 1997). The major difference between these sectors is not in the way service is assessed but in the relative importance given to each service dimension (Berry et al. 1990).

The findings show clearly the relative importance of each service dimension to clients who use interlibrary loan service in academic libraries in Canada. In this study, service dimensions ranked from most to least important accordingly: reliability, responsiveness, assurances, empathy and tangibles. While the study found shortcomings with traditional measures of interlibrary loan service, it also provides a focus for areas of service improvements for academic libraries across the country. Several suggestions for practice can be made based on the findings of this study.

- Focus on defining the service role within the institution. Contrary to popular belief, research shows that managers actually have a better grasp of client expectations than do front-line employees (Zeithaml 1990). Therefore, leadership from management in this process is crucial. Communication of service standards is key. Service employees need to know what "excellent service means and why they should care about delivering it" (Berry et al. 1990, 31). Clear service standards are client expectations stated in ways that are meaningful to employees.

- Train all employees for customer service and give them the responsibility to solve service problems at the time the problem occurs. Shaughnessy (1996) has suggested that library effectiveness depend on the "good work and dedication of each individual staff member" (155). Good work depends upon leadership and training. Employees should be encouraged to practice self-assessment and to reflect on how their performance contributes to the quality of service provided. Library managers should try to use all of the capabilities of the staff working in the library. Controlling service delivery by strict policy and procedure manuals stifles creativity, reduces the opportunity for employees to grow, and encourages the best staff to leave for more interesting work (Berry et al. 1990).
- Research in the service marketing field shows that teamwork is a major factor in delivering excellent service (Zeithaml 1990; Berry et al. 1990; Bicknell 1994; Shaughnessy 1995; Nitecki 1996). Because demanding clients often make service work frustrating, teams can assist in ensuring a consistent level of service by providing support for other service providers. Working in a service team is important in encouraging and sustaining "service mindedness" among employees (Berry et al. 1990, 31). Teams also raise individual performance and "provide one of the greatest individual motivations, respect of peers" (33).
- "Reliability is at the heart of excellent service quality" (Berry et al. 1990, 35). Clients want to know that librarians have the knowledge, skill and dedication required to meet their needs. Clients want to know that when an employee promises to do something by a certain time, they "will do it and do it right the first time" (36). Library managers need to address the reliability issues in all communication materials including mission statements, standards, and training

materials to ensure that appropriate expectations are being set. Library managers must also actively reward service excellence among employees.

- Tied closely to reliability is the resolution of problems. Library staff must focus on being responsive to client problems. Clients want to know that, if service promises can not be met, the library staff will solve the problem. Library managers need to identify problem areas before they happen. What happens after the service problem occurs is just as critical. Three specific strategies for problem resolution have been suggested; a) encourage clients to complain and make it easy for them to do so b) make timely, personal communications with clients a key part of the recovery strategy, and c) encourage employees to respond effectively to client problems and give them the means to do so (Berry et al. 1990, 37). Service problems should be viewed as an opportunity to gain the confidence of that client again. How problems are handled will determine whether the client uses the service again and recommends the service to others. While a satisfactory resolution often results in positive word-of-mouth, a less than satisfactory resolution often results in negative word-of-mouth communications (Richens 1983; Brown and Reingen 1987; Herr et al. 1991).

It is clear from this study that the traditional performance measures used for interlibrary loan service in academic libraries are not sufficient to explain how well the clients' needs and expectations have been met. Library institutions are in an increasingly competitive environment and those who work in libraries must begin to understand and provide whatever it is their clients expect; otherwise, those clients will go elsewhere (D'Elia and Rodgers 1996; Quinn 1997). Librarians must also learn to manage client expectations by telling clients what can and can not be done. This is particularly important in the face of increasingly expensive options for access.

The provision of excellent service quality not only makes sense but is good marketing. In this increasingly competitive environment, a strong vision of excellent service quality is a way to ensure and cement client loyalty and support. The SERVQUAL instrument can be used a management diagnostic tool that can provide the depth of understanding service provision in libraries that, so far, can not be matched with any other standardized tool. It can assist library service providers to understand what it is their clients expect, to focus on what is and is not important to service provision, and to reduce the gaps between what clients expect and what libraries can offer. It can help managers make choices for appropriate service goals and its use can lead to the use of quality strategies that will enhance service effectiveness within academic libraries.

Suggestions for the Use of SERVQUAL in Practice

While an unobtrusive methodology using a modified SERVQUAL instrument is an important approach for establishing provincial and national benchmarks, it is recognized that busy library managers need to simplify the approach used in this study. Several practical suggestions can be made and are as follows:

- The SERVQUAL instrument can be sent directly, by mail, to those who have used the service. Using interlibrary loan as an example, clients who recently made an interlibrary loan request could be sent parts one, two and three of the survey. Surveys could then be returned in pre-paid envelopes (see Nitecki 1996).
- Point of transaction methodology can also be used with this instrument. Clients using a service whether it is interlibrary loan, reference or reserve, could be asked to fill out the three part survey at the end of their transaction (see Kettinger 1997; Pitt 1997).
- The instrument also works well with qualitative techniques such as focus groups or face-to-face interviews. Time at the end of the interviews can be saved for clients to complete the SERVQUAL instrument.
- Incentives such as honorariums, discounts or special products have all been used successfully with this instrument in the private sector and in some public sector studies.

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APPENDIX A

Letters and Correspondence Sent to Intermediaries and Study Participants

Dear Intermediary:

Thank you so much for agreeing to help find 5 people to take part in a research project for my Thesis in the Masters of Library and Information Studies program at the University of Alberta. The selection of these people is critically important in this project and must be bias-free, so it has been decided to use an intermediary such as yourself to select the participants in your city.

Your task then is to find 5 people (friends, colleagues, neighbors or family) who do not work in an academic library and who meet the following conditions:

- Over the age of 18
- Live in your city
- Used an academic library at least once in the last 12 months, for any reason: to borrow a book, to make a photocopy, etc.

Think of the people you know (friends, people at work, family, neighbors) who have easy access to the University library and who also meet these conditions. You may need to call several people to find all 5 that meet the last condition. When you find someone, ask if they would be willing to take part in a research study for the University of Alberta. Show them or read them the description statement enclosed that outlines the project, and the part they would take part in. Please ensure that they understand their right to opt out at any time and the confidentiality of their results.

Those who agree will be paid any expenses associated with their transaction. When you find all 5 people who are willing to participate, call me with their names as soon as possible and I will make contact with them and explain the project and process in greater detail.

Starting right away is important, so I hope you will be able to find 5 people within the next 2 weeks at the latest. Please call me directly if you need more information at (403) 949-2378 (reverse the charges). Or, you may wish to contact Dr. Schrader, the Faculty Supervisor for this project. He can be reached at (403) 492-3922. I thank you very much for helping me.

Sincerely,

Lori Van Rooijen
Graduate Student
University of Alberta

Thesis.3/March 19

Dear Participant:

Thank you very much for agreeing to participate in this study of the quality of interlibrary loan services in academic libraries. Your role in the study will consist of the following:

1. Complete Part one (white) and Part two (green questionnaire) in the envelope marked Part one and two as soon as possible. It should take about 15 minutes. Once completed, return as quickly as possible in the stamped envelope provided.
2. Once Section one has been mailed and received in my office, Section two will be sent to you by mail. Instructions for your next task will be included inside.

Again, please be reassured that you are not being tested in this project. There is no personal risk to you, and there are no right or wrong answers to the questions I am asking in the questionnaires. This study is simply concerned with your feelings and thoughts about the academic libraries and the quality of services that you receive. Note also that the study is confidential. Neither you nor the library you use, nor the persons you interact with in the library will be identified in the research project.

As there is no direct benefit to you in participating in the study, if at any moment you wish to withdraw from the project, you may do so. But, please let me know as soon as possible, as I will need to find a replacement.

Please also note that this study is unobtrusive. The academic library must not know that this is a simulation because it could affect the way you request is handled and corrupt the data. The study is part of thesis research that has been approved by Dr. Schrader, Acting Dean of the School for Library and Information Studies and the University of Alberta Ethics Committee. A consent form is enclosed for your signature.

You are one of 60 people participating in the study across the country. The study is important to the way in which interlibrary loan is developed and processed in the future. I appreciate your willingness to be a part of it. Please remember that time is important and the results need to be back to me by **mid March** of this year. If you do need more information, please call me at (403) 949-2378 (reverse the charges) or call Dr. Alvin Schrader at (403) 492-3932. Thank you very much for participating.

Sincerely,

Lori Van Rooijen, MLIS Graduate Student
School of Library and Information Studies
University of Alberta
Thesis 1/March 19.

A Brief Description of the Research Project for Prospective Participants

This research project is concerned with the quality of interlibrary borrowing services in academic libraries. Participants will go to an academic library with a request for an article that the library does not have. A questionnaire answered by participants before and after their library visit will measure expectations and perceptions of service quality.

Role of Participants in this Project

Participants will play a simple but important role by completing the following tasks:

- Answer a short questionnaire to describe expectations of service in an excellent academic library.
- Visit the academic library to request an article from a journal that the library does not own and ask for help in obtaining the article.
- Return to the library when the article arrives and pick up the article.
- Complete a simple log form and another short questionnaire to describe perceptions of the service received in the library.

Questionnaires can be completed easily in about 20 minutes each. Instructions for the library visit (s) are provided, and the role playing required of participants is straight forward. Participants should note that a small deception is involved, since their role in the project includes going to the library pretending to need a journal article that they in fact do not need. If participants become uncomfortable with this approach, they are free to withdraw from the study at any time.

Confidentiality

Library staff must not know that participants are taking part in a research project because this could bias responses to the service quality. Data collected will be treated as confidential and anonymity is assured. Neither participants nor libraries will be identified by name or city in the project report.

For more information, please contact:

Lori Van Rooijen (403) 949-2378 (home)
University of Alberta (403) 949-4022 (work)
School of Library and Information Studies
Edmonton, Alberta

Thesis.2/March 19

Informed Consent Form

For participants in the research project: Service Quality: An Unobtrusive Investigation of Interlibrary Loan Service in Canadian Academic Libraries.

This is to state that I, ____________________________, agree to participate in this project as described in the written statement attached.

I understand that I can opt out of the research project at any time and that none of the information will be used in the final research report if I choose to opt out. The researcher also promises to a) ensure the confidential nature of my responses to the research questions, and b) that my anonymity will be retained.

______________________________ ____________________

Signature of Participant **Date**

______________________________ ____________________

Signature of the Researcher **Date**

Researcher: Lori Van Rooijen, Graduate Student, Masters Program School of Library and Information Studies at the University of Alberta. (403) 949-2378.

Project Advisor: Dr. Alvin Schrader, Acting Director, School of Library and Information Studies at the University of Alberta. (403) 492-3932.

Please return in the envelope provided (with parts one and two).

Consent.1/March 19.

Dear Participant:

Thank you again for agreeing to participate in this study of the quality of interlibrary loan services in academic libraries. I have received the first section of the survey and have enclosed the second section for you to complete. Please follow the instructions below and if you have any questions at all, do not hesitate to call me collect.

1. Read the simple instructions (blue pages) outlining your first quick visit to the academic library indicated in your package, on a day and time that you can choose at your own convenience. In the library, you will pretend to need an article from a journal that the library does not own (white sheet attached), and ask the library staff for help in obtaining the article. When the library lets you know that the article you requested has arrived, you will return to the library to receive the copy of the article. There are special instructions in your package in the event you do not receive your article but if you do not receive your article within 3 weeks fill out the questionnaire as if the article had never come in (see number 2 and 3 below for further instructions).
2. Complete Part three, the simple log form (yellow pages) and describe your library visits. You will find this log with the blue instruction sheets.
3. Complete Part four (pink questionnaire) to describe what you thought of the library service. Please return all completed questionnaires and log to the researcher directly in the envelope provided. The results need to be returned by **mid March** of this year.

Please be reassured that you are not being tested in this project. There is no personal risk to you, and there are no right or wrong answers to the questions I am asking in the questionnaires. This study is simply concerned with your feelings and thoughts about the academic libraries and the quality of services that you receive. It is not our intention to assess the service quality of each individual library in the study but to provide benchmark data for the overall service quality of Canadian academic libraries.

Note also that the study is confidential. Neither you nor the library you use, nor the persons you interact with in the library will be identified in the research project.

Please also note that this study is unobtrusive. The academic library must not know that this is a simulation because it could affect the way you request is handled and corrupt the data. The study is part of thesis research that has been approved by Dr. Schrader, Director of the School for Library and Information Studies and the University of Alberta Ethics Committee.

You are one of 72 people participating in the study across the country. The study is important to the way in which interlibrary loan is developed and processed in the future. I appreciate your willingness to be a part of it. If you do need more information, please call me at (403) 949-2378 (reverse the charges) or call Dr. Alvin Schrader at (403) 492-3932. Thank you very much for participating.

Sincerely,

Lori Van Rooijen, MLIS Graduate Student
School of Library and Information Studies
University of Alberta
Thesis.6/June 1997

Please ask for this article at the library.

Journal Name: Journal of Microcolumn Separations

Article Name: "Characterization of Chromotographic Silica Gel Support Particles by Gravitational Field Flow Fractionation."

Author Name: Pazourek, J. et al.

Journal Volume: 9 (8)

Journal Year: 1997

Pages: 611 +

Journal Name: As Above

Article Name: "Effect of Flowrate and Ionic Strength on retention of Non-porous Micron Sized Silica Gel Particles in Gravitational Field Flow Fractionation."

Author Name: Pazourek, J. et al.

Journal Volume: 8 (5)

Journal Year: 1996

Pages: 331-338.

APPENDIX B

Study Data Collection Instruments

General Participant Information

Some General Information About You and Your Experience with an Academic Library

PLEASE REMEMBER THAT YOUR RESPONSES WILL BE KEPT CONFIDENTIAL.

You are: Female_______ Male_______

You are____________years old.

Have you been to an academic library in the last 12 months?	Yes	No
Have you ever requested an item through interlibrary loan (ILL) from an academic library?	Yes	No
Have you ever requested an item through ILL from another library, for example, a public or a special library?	Yes	No

Please name the academic library that you were asked to use for this research project.

Library name:____

In order to send parts 3 and 4 of the survey to you, we will need your name and address. Please remember that none of this information will be given out and will only be used internally by the researcher. Thank you.

Name:________________________________

Address:______________________________

____

Postal Code:___________________________

Number ________.

Participant Expectations: Rankings
Part One

Imagine an academic library that you would like to use...Listed below are five features pertaining to academic libraries and the interlibrary loan service they offer. We would like to know how important each of these features is to you when you evaluate an academic library's quality of interlibrary loan service.

- **Read the five features carefully.**

- **In the left hand column, rank the features according to how important each one is to you: the most important should be ranked number 1, the least important number 5. There are no right or wrong answers.**

Rank	**How Important are:**	**Points**
_____	The appearance of the library's physical facilities, equipment, personnel and communication materials.	_____
_____	The ability of the library to perform the promised service dependably and accurately.	_____
_____	The willingness of the library to help clients and provide prompt service	_____
_____	The knowledge and courtesy of the library's employees and their ability to convey trust and confidence.	_____
_____	The caring, individualized attention the library provides its clients.	_____

- **In the right column, divide 100 points among the features to indicate how important each feature is in relation to the others. The feature ranked first should have the most points, and the feature ranked fifth should have the least points. If you feel some features are equally important, you can give them equal points. PLEASE ENSURE THAT POINTS ADD UP TO 100.**

Number _________.

Participant Expectations: Ratings
Part Two

This survey deals with your opinions of interlibrary loan service.

Based on your experiences as a client of an academic library, please think about the kind of academic library that would deliver excellent quality of interlibrary loan service.

Please show the extent to which you think a library offering interlibrary loan service should possess the features described by each statement.

If you feel a feature is not at all essential for an excellent academic library such as the one you have in mind, circle the number 1. If you feel a feature is absolutely essential for an excellent academic library, circle 7. If your feelings are less strong, circle one of the numbers in between.

There are no right or wrong answers - all we are interested in is a number that truly reflects your feelings regarding an academic library that would deliver excellent interlibrary loan services.

	Strongly Disagree						Strongly Agree
1. Excellent libraries' interlibrary loan units (ILL) units will have modern-looking equipment.	1	2	3	4	5	6	7
2. The physical facilities at excellent libraries' ILL units will be visually appealing.	1	2	3	4	5	6	7
3. Employees at excellent libraries' ILL units will be neat appearing.	1	2	3	4	5	6	7
4. Materials associated with the ILL services (such as pamphlets or statements) will be visually appealing in an excellent library.	1	2	3	4	5	6	7
5. When excellent libraries' ILL unit promises to do by a certain time, they will do so.	1	2	3	4	5	6	7
6. When a client has a problem, excellent libraries' ILL will show a sincere interest in solving it.	1	2	3	4	5	6	7
	Strongly Disagree						Strongly Agree

Number _______.

Number ____.

	Strongly Disagree						Strongly Agree
7. Excellent libraries will perform ILL services right the first time.	1	2	3	4	5	6	7
8. Excellent libraries will provide ILL services at the at the time they promise to do so.	1	2	3	4	5	6	7
9. Excellent libraries' ILL units will insist on error-free records.	1	2	3	4	5	6	7
10. Employees in excellent libraries will tell clients exactly when ILL services will be performed.	1	2	3	4	5	6	7
11. Employees in excellent libraries will give prompt ILL service to clients.	1	2	3	4	5	6	7
12. Employees in excellent libraries' ILL units will always be willing to help clients.	1	2	3	4	5	6	7
13. Employees in excellent libraries' ILL units will never be too busy to respond to clients' requests.	1	2	3	4	5	6	7
14. The behavior of employees in excellent libraries' ILL units will instill confidence in clients.	1	2	3	4	5	6	7
15. Clients of excellent libraries will feel safe in their ILL transactions.	1	2	3	4	5	6	7
16. Employees in excellent libraries' ILL units will be consistently courteous with clients.	1	2	3	4	5	6	7
17. Employees in excellent libraries' ILL units will have the knowledge to answer clients' questions.	1	2	3	4	5	6	7
18. Excellent libraries' ILL units will give clients individual attention.	1	2	3	4	5	6	7
	Strongly Disagree						Strongly Agree

Number _____

	Strongly Disagree						Strongly Agree
19. Excellent libraries' ILL units will have operating hours convenient to all of their clients.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
20. Excellent libraries' ILL units will have employees who give clients personal attention.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
21. Excellent libraries' ILL units will have the client's best interests at heart.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
22. The employees of excellent libraries' ILL units will understand the specific needs of their clients.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
	Strongly Disagree						**Strongly Agree**

Are there any other features that you think are important for an excellent academic library?

____

____

____

____

____

Please return part 1 (white), part 2 (green) and the gray information sheet in the stamped envelope provided. Parts 3 and 4 will be sent to you soon. Thank you for your help!

Lori Van Rooijen, Graduate Student
School of Library and Information Studies
University of Alberta
3rd Floor, Rutherford South
Edmonton, Alberta
T6G 2J4

(403) 949-2378
(403) 949-4022
(403) 949-4094 (fax)

YOUR STORY

You need an article for a paper that you are doing for one of your courses. A citation is attached.

- Go to the academic library that you were asked to visit when you agreed to participate in this study.
- Go in the morning, afternoon or evening, on a weekday or weekend, whichever time and day are convenient for you.
- Go alone, or with another person such as a friend, child or spouse, as if you might do in a real situation. They can stand near you, to help you remember details later, but they must not get involved.
- This type of request happens all the time in libraries. The library staff probably won't ask why you want this article. But if they do, simply say that it is very important to your paper.
- **The library staff must not realize that this particular request is a simulation because it could affect the way your request is handled. Try to act a natural as possible.**

IN THE LIBRARY

- Look for the journal indicated in the library catalogue. You won't find it, so don't look to hard. You just want to be able to say that you looked.
- Next, ask for help. Go to the Library Information desk. Approach the person at the desk and say these words as naturally as possible:

  > Excuse me, I need this article from this journal but I can't seem to find the journal in your catalogue. Can you help me?

- Give the person a copy of the citation provided. If you are sent to another person, that is okay, just repeat the process. Be sure to record this in your log.

Your possible conversations with the staff...

If the staff person says...	**You Could Say Something Like:**
"Have you looked in the catalogue?"	Yes, but I can not find it.
"Why don't you try the ....library?"	It's not convenient for me to go there. Can you help?
"Perhaps another article would suffice?	I need this article.
"It may take some time..."	I'd like to see this article soon but I can wait several weeks if necessary.
"Seems we can't help you..."	Someone told me you can get this article from other libraries. Could you do that for me?"
"Sorry, we do not have that service."	Are you sure you can't help me, I really need this article.
"Sorry. No."	Good-bye.

BACK HOME

- As soon as possible, while your memory is still fresh, complete the relevant questions in the yellow client log.

- Wait no more than 4 weeks for the library to contact you. If you have not been contacted within that time period, contact the library yourself.

WHEN YOUR ARTICLE HAS ARRIVED

- When the library staff calls/writes to say your article has arrived, drop by as soon as you can. Pick up your article (you may need to pay for this, your expenses will be reimbursed).

- A soon as you can after your library encounter, complete the yellow client log to the end.

IF YOUR ARTICLE IS NOT LOCATED

- If the library staff calls/writes to say they have been unable to locate this article, remind them that you need the article badly, and ask if they would continue to look for it. If they agree to keep looking, wait one more week until before you contact them again.

- If the library staff say they have looked everywhere and still cannot locate the article, thank them for their effort and leave it at that. Complete the yellow client log to the end.

When the yellow client log has been completed, answer the pink questionnaire, fill out your expense form, and return all of the above in the envelope provided.

Many Thanks!

Participant Experience: Client Log
Part Three

Client Log

Complete this log as soon as possible after your first visit to the academic library.

We have tried to anticipate what could happen in the library, but probably things happened that we could not expect. Please make notes in the margin or in the spaces provided if you think your experience warrants further explanation. We will appreciate all the details that you can provide to describe your experience in the academic library.

Library Name:____

City:____

Your Visit to the Library

Time:____

Date:____

The Staff person asked....

	Circle as appropriate	
.....By what date you need this article	Yes	No
.....If you are willing to pay a charge	Yes	No
.....If you have a library card or are otherwise entitled to this service.	Yes	No
.....If you have checked the library catalogue	Yes	No
.....If you have looked in another library	Yes	No
.....If you would go to another library	Yes	No
.....How to contact you when the article arrives	Yes	No

Can you provide more details about your experience at the library? The atmosphere, the staff, the service, things you were asked or told that are not listed on the previous page....

Thanks. Complete the next section when the library contacts you.

Complete this section when the library contacts you.

Date of Contact:____________________

How were you contacted?

Telephone:____________Mail:______________Other (specify)_________________________

What was the message from the library?

.....Your article has arrived.......................................**Go to the next page.**

or

.....We've been unable to locate this article"..............**See below**

If the library agrees to keep trying to locate the article, set aside this log until the library contacts you again, continue the log then, starting with the question below....

Date of second library contact:____________________

How were you contacted the second time?

Telephone:____________Mail:______________Other (specify):_________________________

What was the second message from the library?

.....Your article has arrived".................................**Go to the next page**

or

.....We can not locate this article...........................**Complete the pink questionnaire**

Complete this section after you have been to the academic library to consult the article.

1. Your second library visit: Date:______________________

Time:______________________

2. Was the correct article waiting for you when you arrived at the library? (If no, please explain what happened) Yes No

____

____

____

3. Was there a charge for this service? Yes No

If yes, what was the charge?____________________

If yes, did the library tell you in advance what the charge would be? Yes No

4. Do you have additional comments about your experience in picking up the article that you requested at this library?

____

____

____

____

Now, answer the pink questionnaire. It should only take about 20 minutes. Then you are through!

Lori Van Rooijen, Graduate Student **(403) 949-2378**
School of Library and Information Studies **(403) 949-4022**
University of Alberta **(403) 949-4094 (fax)**
3rd floor, Rutherford Library S.
Edmonton, Alberta
T6G 2J4

Participant Experience: Perception
Part Four

The following set of statements relate to your feelings about this academic library's interlibrary loan service.

For each statement, please show the extent to which you believe this library has the feature described by the statement.

Once again, circling a 1 means that you strongly disagree that this library has that feature, and circling a 7 means that you strongly agree. You may circle any of the numbers in between that show how strong your feelings are.

There are no right of wrong answers - all we are interested in is a number that best shows your perceptions regarding the quality of this academic library's interlibrary loan service.

	Strongly Disagree						Strongly Agree
1. This library's interlibrary loan (ILL) unit has modern looking equipment.	1	2	3	4	5	6	7
2. This library's ILL unit's physical facilities are visually appealing.	1	2	3	4	5	6	7
3. This library's ILL unit employees are neat-appearing.	1	2	3	4	5	6	7
4. Materials associated with the ILL services (such as pamphlets or statements) are visually appealing at this library.	1	2	3	4	5	6	7
5. When this library's ILL unit promises to do something by a certain time, it does so.	1	2	3	4	5	6	7
6. When an ILL client has a problem, this library shows a sincere interest in solving it.	1	2	3	4	5	6	7
7. This library performs ILL services right the first time.	1	2	3	4	5	6	7
8. This library provides its ILL service in the time it promises to do so.	1	2	3	4	5	6	
	Strongly Disagree						Strongly Agree

Number____

	Strongly Disagree						Strongly Agree
9. This library's ILL unit insists on error-free records.	1	2	3	4	5	6	7
10. Employees of this library tell you exactly when ILL services will be performed.	1	2	3	4	5	6	7
11. Employees of this library's ILL unit give you prompt ILL services.	1	2	3	4	5	6	7
12. Employees of this library's ILL unit are always willing to help you.	1	2	3	4	5	6	7
13. Employees of this library's ILL unit are never too busy to respond to your request.	1	2	3	4	5	6	7
14. The behavior of employees of this library's ILL unit instill confidence in clients.	1	2	3	4	5	6	7
15. You feel safe in your ILL transactions with this library.	1	2	3	4	5	6	7
16. Employees of this library's ILL unit are consistently courteous with you.	1	2	3	4	5	6	7
17. Employees of this library's ILL unit have the knowledge to answer your questions.	1	2	3	4	5	6	7
18. This library's ILL unit gives you individual attention.	1	2	3	4	5	6	7
19. This library's ILL unit has operating hours convenient to you.	1	2	3	4	5	6	7
20. This library's ILL unit has employees who give you personal attention.	1	2	3	4	5	6	7
21. This library's ILL unit has your best interests at heart.	1	2	3	4	5	6	7
22. Employees of this library's ILL unit understand your specific needs.	1	2	3	4	5	6	7
	Strongly Disagree						**Strongly Agree**

Number_____

Think back to your earlier expectations of an academic library that you would like to use, and in your mind, compare those expectations to what actually happened in this exercise. Circle the number that corresponds most closely to your feelings.

Compared to what you originally expected, the service was....

Much Worse Much Better

1 2 3 4 5 6 7

Overall, you feel....

Very Dissatisfied Very Satisfied

1 2 3 4 5 6 7

Please comment on what made your experience satisfying or not. Be as specific as you can in describing the circumstances that led to your satisfaction or your dissatisfaction, or what the library staff did or said that contributed to this feeling.

____

____

____

____

____

____

____

Number _____

Based on your experience with this academic library, would you recommend the interlibrary loan service to a friend?

_____Yes _____No

Again, based on the rating scale below, would you recommend interlibrary loan service to a friend?

Absolutely Not					Yes, Absolutely	
1	2	3	4	5	6	7

Thinking about this academic library, what is your overall attitude about the services that it offers to its clients?

Very Poor					Very Good	
1	2	3	4	5	6	7

Thank you for completing this final questionnaire. Please return your client log (yellow) and your questionnaire (pink) in the envelope provided.

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APPENDIX C

Study Data Structure

General Participant Information

Some General Information About You and Your Experience with an Academic Library

VARIABLES		**VALUES**
Gender	Female________**(1)**	Male________**(2)**
Age	You are_____________years old.**(1-98)**	
Have you been to an academic library in the last 12 months? **GIQ3 (values 1-2)**	Yes **(1)**	No **(2)**
Have you ever requested an item through interlibrary loan (ILL) from an academic library? **GIQ4 (values 1-2)**	Yes **(1)**	No**(2)**
Have you ever requested an item through ILL from another library, for example, a public or a special library? **GIQ5 (values 1-2)**	Yes**(1)**	No**(2)**

Library name:___________________________________**(values 1-15)**

Participant Expectations: Ranking

Part One

VALUES	**VARIABLES**	**VALUES**
Rank	How Important are:	Points
P1Q1rank (value 1-5)	The appearance of the library's physical facilities, equipment, personnel and communication materials. **(Tangibles)**	**P1Q1pont(1-100)**
P1Q2rank (value 1-5)	The ability of the library to perform the promised service dependably and accurately. **(Reliability)**	**P1Q2pont(1-100)**
P1Q3rank (value 1-5)	The willingness of the library to help clients and provide prompt service. **(Responsiveness)**	**P1Q3pont(1-100)**
P1Q4rank (value 1-5)	The knowledge and courtesy of the library's employees and their ability to convey trust and confidence. **(Assurance)**	**P1Q4pont(1-100)**
P1Q5rank (value 1-5)	The caring, individualized attention the library provides its clients. **(Empathy)**	**P1Q5pont(1-100)**

Participant Expectations: Ratings
Part Two

VARIABLES	Strongly Disagree			VALUES			Strongly Agree
1. Excellent libraries' interlibrary loan units (ILL) units will have modern-looking equipment.**ExpQ1 (value 1-7)**	1	2	3	4	5	6	7
2. The physical facilities at excellent libraries' ILL units will be visually appealing. **ExpQ2 (value 1-7)**	1	2	3	4	5	6	7
3. Employees at excellent libraries' ILL units will be neat appearing. **ExpQ3 (value 1-7)**	1	2	3	4	5	6	7
4. Materials associated with the ILL services (such as pamphlets or statements) will be visually appealing in an excellent library. **ExpQ4 (value 1-7)**	1	2	3	4	5	6	7
5. When an excellent libraries' ILL unit promises to do by a certain time, they will do so. **ExpQ5 (value 1-7)**	1	2	3	4	5	6	7
6. When a client has a problem, excellent libraries' ILL will show a sincere interest in solving it. **ExpQ6 (value 1-7)**	1	2	3	4	5	6	7
7. Excellent libraries' will perform ILL services right the first time. **ExpQ7 (value 1-7)**	1	2	3	4	5	6	7
8. Excellent libraries will provide ILL services at the at the time they promise to do so. **ExpQ8 (value 1-7)**	1	2	3	4	5	6	7
9. Excellent libraries' ILL units will insist on error-free records. **ExpQ9 (value 1-7)**	1	2	3	4	5	6	7
10. Employees in excellent libraries will tell clients exactly when ILL services will be performed. **ExpQ10 (value 1-7)**	1	2	3	4	5	6	7
11. Employees in excellent libraries will give prompt ILL service to clients. **ExpQ11 (value 1-7)**	1	2	3	4	5	6	7
12. Employees in excellent libraries' ILL units will always be willing to help clients. **Expq12 (value 1-7)**	1	2	3	4	5	6	7
13. Employees in excellent libraries' ILL units will never be too busy to respond to clients' requests. **(ExpQ13 (values 1-7)**	1	2	3	4	5	6	7

VARIABLES	Strongly Disagree				VALUES		Strongly Agree
14. The behavior of employees in excellent libraries' ILL units will instill confidence in clients. **ExpQ14 (values 1-7)**	1	2	3	4	5	6	7
15. Clients of excellent libraries' will feel safe in their ILL transactions. **ExpQ15 (values 1-7)**	1	2	3	4	5	6	7
16. Employees in excellent libraries' ILL units will be consistently courteous with clients. **ExpQ16 (values 1-7)**	1	2	3	4	5	6	7
17. Employees in excellent libraries' ILL units will have the knowledge to answer clients' questions. **ExpQ17 (values 1-7)**	1	2	3	4	5	6	7
18. Excellent libraries ILL units will give clients individual attention. **ExpQ18 (values 1-7)**	1	2	3	4	5	6	7
19. Excellent libraries' ILL units will have operating hours convenient to all of their clients. **ExpQ19 (values 1-7)**	1	2	3	4	5	6	7
20. Excellent libraries' ILL units will have employees who give clients personal attention. **ExpQ20 (values 1-7)**	1	2	3	4	5	6	7
21. Excellent libraries' ILL units will have the client's best interests at heart.**ExpQ21 (values 1-7)**	1	2	3	4	5	6	7
22. The employees of excellent libraries' ILL units will understand the specific needs of their clients. **ExpQ22 (values 1-7)**	1	2	3	4	5	6	7

Participant Experience: Client Log
Part Three

VARIABLE - Article Requested - **1 1996 article**
2 1997 article

Your Visit to the Library

Time: **VARIABLE** - Turnaround Time **VALUE - none**

Date: **VARIABLE - Fill rate VALUE - 1 - yes 2 = no**

The Staff person asked....

Circle as appropriate

VARIABLE	**VALUE**	
P3Q4 date -By what date you need this article	Yes(1)	No(2)
P3Q5 charge - If you are willing to pay a charge	Yes(1)	No(2)
P3Q6 card - If you have a library card or are otherwise entitled to this service.	Yes(1)	No(2)
P3Q7 catalogue - If you have checked the library catalogue	Yes(1)	No(2)
P3Q8 another library - If you have looked in another library	Yes(1)	No(2)
P3Q9 other library - If you would go to another library	Yes(1)	No(2)
P3Q10 contact - How to contact you when the article arrives	Yes(1)	No(2)

How were you contacted?

Telephone:______________Mail:_______________Other (specify)___________________________

2. Was the correct article waiting for you when you arrived at the library?	Yes	No
3. Was there a charge for this service?	Yes	No

If yes, what was the charge?_____________________

If yes, did the library tell you in advance what the charge would be?	Yes	No

Participant Experience: Perceptions
Part Four

VARIABLE	Strongly Disagree			VALUES			Strongly Agree
1. This library's interlibrary loan (ILL) unit has modern looking equipment. **PerQ1 (value 1-7)**	1	2	3	4	5	6	7
2. This library's ILL unit's physical facilities are visually appealing. **PerQ2 (value 1-7)**	1	2	3	4	5	6	7
3. This library's ILL unit employees are neat-appearing. **PerQ3 (value 1-7)**	1	2	3	4	5	6	7
4. Materials associated with the ILL services (such as pamphlets or statements) are visually appealing at this library. **PerQ4 (value 1-7)**	1	2	3	4	5	6	7
5. When this library's ILL unit promises to do something by a certain time, it does so. **PerQ5 (value 1-7)**	1	2	3	4	5	6	7
6. When an ILL client has a problem, this library shows a sincere interest in solving it. **PerQ6 (value 1-7)**	1	2	3	4	5	6	7
7. This library performs ILL services right the first time. **PerQ7 (value 1-7)**	1	2	3	4	5	6	7
8. This library provides its ILL service in the time it promises to do so. **PerQ8 (value 1-7)**	1	2	3	4	5	6	7
9. This library's ILL unit insists on error-free records. **PerQ9 (value 1-7)**	1	2	3	4	5	6	7
10. Employees of this library tell you exactly when ILL services will be performed. **PerQ10 (value 1-7)**	1	2	3	4	5	6	7
11. Employees of this library's ILL unit give you prompt ILL services. **PerQ11 (value 1-7)**	1	2	3	4	5	6	7
12. Employees of this library's ILL unit are always willing to help you. **PerQ12 (value 1-7)**	1	2	3	4	5	6	7

VARIABLE	Strongly Disagree			**VALUES**			Strongly Agree
13. Employees of this library's ILL unit are never too busy to respond to your request. **PerQ13 (value 1-7)**	1	2	3	4	5	6	7
14. The behavior of employees of this library's ILL unit instill confidence in clients. **PerQ14 (value 1-7)**	1	2	3	4	5	6	7
15. You feel safe in your ILL transactions with this library. **PerQ15 (value 1-7)**	1	2	3	4	5	6	7
16. Employees of this library's ILL unit are consistently courteous with you. **PerQ16 (value 1-7)**	1	2	3	4	5	6	7
17. Employees of this library's ILL unit have the knowledge to answer your questions. **PerQ17 (value 1-7)**	1	2	3	4	5	6	7
18. This library's ILL unit gives you individual attention. **PerQ18 value 1-7)**	1	2	3	4	5	6	7
19. This library's ILL unit has operating hours convenient to you. **PerQ19 (value 1-7)**	1	2	3	4	5	6	7
20. This library's ILL unit has employees who give you personal attention. **PerQ20 (value 1-7)**	1	2	3	4	5	6	7
21. This library's ILL unit has your best interests at heart. **PerQ21 (value 1-7)**	1	2	3	4	5	6	7
22. Employees of this library's ILL unit understand your specific needs. **PerQ22 (value 1-7)**	1	2	3	4	5	6	7

Compared to what you originally expected, the service was....

(VARIABLE - P4Q23-General Expectations) Much Worse Much Better

VALUES

1 2 3 4 5 6 7

Overall, you feel....**VARIABLE -P4Q24 -Satisfied** Very Dissatisfied Very Satisfied

VALUES

1 2 3 4 5 6 7

Based on your experience with this academic library, would you recommend the interlibrary loan service to a friend? **VARIABLE P4Q25 - Recommend**

VALUES _____Yes(1) _____No(2)

Again, based on the rating scale below, would you recommend interlibrary loan service to a friend? **VARIABLE - P4Q26 - Recommend**

Absolutely Not Yes, Absolutely

VALUES

1 2 3 4 5 6 7

Thinking about this academic library, what is your overall attitude about the services that it offers to its clients? **VARIABLE - P4Q27 - Attitude**

Very Poor Very Good

VALUES

1 2 3 4 5 6 7

APPENDIX D

Summary of Data

Summary of Data (n=54)

General Participant Information

Some General Information About You and Your Experience with an Academic Library

You are:	**Female 34** **63%**	**Male**	**20** **37%**
Years of age:	**Mean 31** **Standard Deviation 10**	**Median 28**	**Mode 23**
Have you been to an academic library in the last 12 months?	Yes **54** **100%**	No **0** **0%**	No Response **0** **0%**
Have you ever requested an item through interlibrary loan (ILL) from an academic library?	Yes **35** **65%**	No **18** **33%**	No Response **1** **2%**
Have you ever requested an item through ILL from another library, for example, a public or a special library?	Yes **17** **31%**	No **36** **67%**	No Response **1** **2%**

Participant Expectations: Ranking (n=54)

Part One

Rank	How Important are:	Total Points (out of 5400)	Mean Points (out of 100)	Service Dimension
5	The appearance of the library's physical facilities, equipment, personnel and communication matierals.	459	10	Tangibles
1	The ability of the library to perform the promised service dependably and accurately.	1949	36	Reliability
2	The willingness of the library to help the client and provide prompt service.	1261	23	Responsiveness
3	The knowledge and courtesy of the library's employees and their their ability to convey trust and confidence.	1064	19	Assurance
4	The caring, individualized attention the library provides its clients.	667	12	Empathy

Participant Expectations: Ratings (n=54)
Part Two

	Mean	Med	Mode	SD
Tangibles				
1. Excellent libraries' interlibrary loan units (ILL) units will have modern-looking equipment.	3.1	3	3	1.5
2. The physical facilities at excellent libraries' ILL units will be visually appealing.	2.8	3	2	1.3
3. Employees at excellent libraries' ILL units will be neat appearing.	3.6	3	2	1.5
4. Materials associated with the ILL services (such as pamphlets or statements) will be visually appealing in an excellent library.	3.6	3	2	1.5
Reliability				
5. When an excellent libraries' ILL unit promises to do by a certain time, they will do so.	6.4	7	7	.7
6. When a client has a problem, excellent libraries' ILL will show a sincere interest in solving it.	6.4	7	7	.9
7. Excellent libraries' will perform ILL services right the first time.	6.3	6.5	7	.9
8. Excellent libraries will provide ILL services at the at the time they promise to do so.	6.3	7	7	.9
9. Excellent libraries' ILL units will insist on error-free records.	5.8	6	7	1.0
Responsiveness				
10. Employees in excellent libraries will tell clients exactly when ILL services will be performed.	5.6	6	7	1.0
11. Employees in excellent libraries will give prompt ILL service to clients.	6.2	6.5	7	1.0
12. Employees in excellent libraries' ILL units will always be willing to help clients.	6.4	7	7	.8

	Mean	Med	Mode	SD
13. Employees in excellent libraries' ILL units will never be too busy to respond to clients' requests.	5.4	5	5	1.1
Assurance				
14. The behavior of employees in excellent libraries' ILL units will instill confidence in clients.	5.5	6	5	1.0
15. Clients of excellent libraries' will feel safe in their ILL transactions.	5.9	6	7	1.1
16. Employees in excellent libraries' ILL units will be consistently courteous with clients.	5.7	6	7	1.2
17. Employees in excellent libraries' ILL units will have the knowledge to answer clients' questions.	6.4	7	7	.7
18. Excellent libraries ILL units will give clients individual attention.	5.8	6	7	1.1
Empathy				
19. Excellent libraries' ILL units will have operating hours convenient to all of their clients.	5.2	5	5	1.4
20. Excellent libraries' ILL units will have employees who give clients personal attention.	5.4	5	5	1.1
21. Excellent libraries' ILL units will have the client's best interests at heart.	5.7	6	7	1.2
22. The employees of excellent libraries' ILL units will understand the specific needs of their clients.	5.8	6	6	.9

Open-ended comments on expectations of service: **29 of 54 participants.**

Participant Experience: Client Log (n=54)
Part Three

The Staff person asked....

	Circle as appropriate	
.....By what date you need this article	Yes	No
	29	**25**
	54%	**46%**
.....If you are willing to pay a charge	Yes	No
	24	**30**
	44%	**56%**
.....If you have a library card or are otherwise entitled to this service.	Yes	No
	21	**33**
	39%	**61%**
.....If you have checked the library catalogue	Yes	No
	28	**26**
	52%	**48%**
.....If you have looked in another library	Yes	No
	4	**50**
	7%	**93%**
.....If you would go to another library	Yes	No
	6	**48**
	11%	**89%**
.....How to contact you when the article arrives	Yes	No
	30	**24**
	56%	**44%**

How were you contacted?

Telephone: **15** E-mail: **16** Mailed: **12** Other: Participant contacted library: **11**

2. Was the correct article waiting for you when you arrived at the library? (If no, please explain what happened)	Yes	No
	44	**10**
	82%	**18%**
3. Was there a charge for this service?	Yes	No
	28	**16**

If yes, what was the charge?

Average $4.00
Range: $1.00 to $8.00.

If yes, did the library tell you in advance what the charge would be?	Yes	No	No Response
	20	**8**	**16**

Open-ended comments on Experiences: **49 participants of 54.**

Participant Experience: Perception (n=54)
Part Four

	Mean	Med	Mode	SD
Tangibles				
1. This library's interlibrary loan (ILL) unit has modern looking equipment.	4.6	5	4	1.6
2. This library's ILL unit's physical facilities are visually appealing.	4.2	4	5	1.4
3. This library's ILL unit employees are neat-appearing.	5.0	5	6	1.2
4. Materials associated with the ILL services (such as pamphlets or statements) are visually appealing at this library.	3.9	4	5	1.6
Reliability				
5. When this library's ILL unit promises to do something by a certain time, it does so.	4.8	5	4	1.8
6. When an ILL client has a problem, this library shows a sincere interest in solving it.	4.9	5	5	1.6
7. This library performs ILL services right the first time.	5.3	6	6	1.7
8. This library provides its ILL service in the time it promises to do so.	5.1	5.5	6	1.6
9. This library's ILL unit insists on error-free records.	4.5	4	4	1.9
Responsiveness				
10. Employees of this library tell you exactly when ILL services will be performed.	3.8	4	4	1.9
11. Employees of this library's ILL unit give you prompt ILL services.	5.0	6	6	1.6
12. Employees of this library's ILL unit are always willing to help you.	4.9	6	6	1.7

	Mean	Med	Mode	SD
13. Employees of this library's ILL unit are never too busy to respond to your request.	4.7	5	6	1.6
Assurance				
14. The behavior of employees of this library's ILL unit instill confidence in clients.	4.9	5	6	1.7
15. You feel safe in your ILL transactions with this library.	5.5	6	6	1.6
16. Employees of this library's ILL unit are consistently courteous with you.	5.3	6	6	1.5
17. Employees of this library's ILL unit have the knowledge to answer your questions.	5.2	6	6	1.4
18. This library's ILL unit gives you individual attention.	5.2	6	6	1.7
Empathy				
19. This library's ILL unit has operating hours convenient to you.	4.3	5	5	1.8
20. This library's ILL unit has employees who give you personal attention.	5.0	6	6	1.6
21. This library's ILL unit has your best interests at heart.	4.9	5	5	1.5
22. Employees of this library's ILL unit understand your specific needs.	4.5	5	4	1.4

Compared to what you originally expected, the service was....

	Much Worse					Much Better		Mean	SD
	1	2	3	4	5	6	7		
%	7	7	4	30	28	18	6	4.4	1.6

Overall, you feel....

	Very Dissatisfied				Very Satisfied			Mean	SD
	1	2	3	4	5	6	7		
%	4	4	9	9	22	33	18	5.2	1.6

Based on your experience with this academic library, would you recommend the interlibrary loan service to a friend?

Yes	48 89%	No	6 11%

Again, based on the rating scale below, would you recommend interlibrary loan service to a friend?

	Absolutely Not					Yes, Absolutely		Mean	SD
	1	2	3	4	5	6	7		
%	4	6	4	4	18	24	41	5.6	1.7

Thinking about this academic library, what is your overall attitude about the services that it offers to its clients?

	Very Poor					Very Good		Mean	SD
	1	2	3	4	5	6	7		
%	2	2	7	13	28	33	15	5.2	1.3

Open-ended comments on what made experience satisfying or not: **45 of 54 participants**

APPENDIX E

Participant Experiences: Log Comments

Request #1 (filled)

Actual Performance: Refused service initially because the article did not seem to match area of study. Received article in end through another means.

Request #2 (not filled)

Actual Performance: No reason given just that (the client) had a bad experience and was as (the client) described it to me as badgering him about why he needed the article. Refused service because article did not seem to match area of study.

Request #3 (not filled)

Actual Performance: Eventhough my library card was no longer valid, (which I did not know) the employees of (the library) seemed more helpful than my previous experience with library staff.

Request #4 (not filled)

Actual Performance: No comments except that the library did not filled request.

Request #5 (filled)

Expectations: A choice of places (i.e. smaller library sites) on campus to drop off or pick up ILL requests would be helpful. Really liked the fact that they are notified by e-mail that the ILL material is in.

Actual Performance: As soon as I gave my last name the woman at the Document Delivery desk said "oh yes". She recognized that there was material in for me. She does not know me personally and she was very friendly and efficient. I am pleased at the promptness of my ILL unit. They performed exactly as I expected. They are consistently great.

Request #6 (filled)

No comments.

Request #7 (not filled)

Actual Performance: Service was lower than expected, usually quite efficient but could not find article for some reason.

Request #8 (filled)

Actual Performance: The most important thing was this...before he explained anything about ILL he chose the option of checking the internet; he found the Journals home page and explained that sometimes they have 'freebie' articles to encourage people to pay for a subscription, mine could not be found though and then he proceeded with the ILL stuff. The whole interview took about 7 minutes, ending with me filling out the form.

Informing patrons of any copyright issues and the costs associated with photocopying as soon as possible." I did not like the $8.00 charge but..was pleased to find how everything was done very efficiently and quickly.

Request #9 (filled)

Actual Performance: Try to get as many international books, journals and documents as possible. Try to get in new books as soon as they are released." I received a prompt response. The librarian was busy with the computer but as soon as she saw me, she asked if I wanted help. I was told the article would be here in 10 days to 3 weeks but arrived 3 days after the request.

The fact that the article arrived earlier than I expected, I think they are efficient.

Request #10 (filled)

Actual Performance: I was asked my source (citation) for the article...In my opinion this line of questioning which is routine at (the library) stems from a mistrust of students and their ability to find things and to record information accurately. I told her that I could not remember and was told in a 'half-joking/half serious' manner that if a proper citation couldn't be located by ILL staff that I would be in trouble!

The transaction went pretty smoothly, although I was informed that I was lucky to get the photocopies.

I would recommend the service but only if my friend couldn't get something at another nearby library. I don't think most of the staff at ILL concern themselves too much with my 'specific needs' they just do their jobs without stretching themselves.

Request #11 (filled)

Actual Performance: Went back to the library 3 times.

Usually the library is very expedient in its service. They also put a rush on it if you are in a hurry. This was the first time I had the experience that it took so long,

Request #12 (filled)

Expectations: A full range of easy-to use academic data bases - journals, theses, monographs and edited volumes...knowledgeable content-area librarians...full set of standard reference works...easy to use catalogue...quiet, well lit work areas.

Actual Performance: The most satisfying part is that the transaction was almost transparent. Our library has relatively small holdings, so the ILL office compensates.

Request #13 (filled)

Expectations: I really prefer to do ILL on internet; however, I still require personal attention for explaining what is on the computer screen and what did not work, etc. From (the library), I can access the (another libraries) catalogue. It would be useful it I could also access the local public libraries as well. This would save the ILL department some time and expense.

Actual Performance: I filled out the ILL form and summoned the woman. She would just have taken the form except I asked her a number of questions. I asked how long for the article to come. She said they were very busy and it would take a week before they could order it.

Request #14 (filled)

Actual Performance: I like the personal touch so moving to a digital request form is different. Allows the librarians to perform other duties however...Very satisfied - obtained the article easily and like having it delivered to me as well.

Request #15 (filled)

Expectations: lots of resources i.e. books

Actual Performance: I was surprised at how helpful and courteous the gentleman at the information desk was. He asked it I would like to learn how to fill out an ILL form on the computer. He filled in the portions of the ILL form that he was able to.

Usually, I have little or no contact with the ILL office. I have only been there when I have borrowed books from other libraries. Otherwise I do not engage with the ILL personnel nor with librarians. I order articles by computer and the articles show up in my mailbox. In this exercise, I spoke to the employee at the information desk and he was very helpful. I received the article very quickly. That is why I was satisfied. Sometime they don't give me the right pages or it takes a long time or I just can't get the article but usually it is fine.

Request #16 (filled)

Expectations: I don't feel that the employees need to have all information at their fingertips, but a willingness to find out would be much appreciated.

Actual Performance: I had high expectations for an academic library and still do but I did not expect (the Library) to live up to those expectations. I was pleasantly surprised. I was not aware that the ILL service was computerized and I found this made the process quick and easy. The staff answered any questions that I had and were helpful. For someone unfamiliar with computers, this service would not be as satisfactory and I'm not sure whether the staff would take the time to help them every inch of the way.

Request #17 (filled)

Actual Performance: The library now uses an online ILL service. The librarian showed me how to use this then left me to type in the details. She was helpful and it was a very simple process.

Request #18 (not filled)

Expectations: How the equipment works is not so important, but the equipment itself should be reliable and should be of the relatively latest technology...Most ILL close at 5:00pm - one or two evenings a week would be nice if it is not always possible to make it during business hours...If they (the librarians) are not sure when/how long, they should be honest a say so but if they promise, promises should be kept (and sometimes it makes a huge difference). They should aim for that and try their best, but perfection is not always possible...prompt notice of incoming materials is important.

Actual Performance: After asking the question provided, the librarian immediately began explaining the use of their new electronic request form. She explained all the steps to me, including explanations as to why the library was moving to this new method (faster, easier, efficient, etc.). She was very friendly and knowledgeable.

I did feel they pushed 'the new way' a little too quickly: perhaps they should have waited 'til my next request. It is a little annoying that I kept having to phone them: 1. to make sure that my electronic request got to them and 2. at the end of the month and 3. at the end of another week. Other ILL's I've dealt with have usually contacted me regarding problems, etc.

Request #19 (filled)

Actual Performance: Staff person helping me was friendly and answered all my questions. Also asked what faculty I was in...Nice to send through mail since I knew I would not be able to pick up due to hours of ILL. Hours not conducive to those who work during the day away from campus.

Request #20 (filled)

Expectations: Web based ILL form...telephone or e-mail notification of available documents...employees who understand terminology used in ILL.

Actual Performance: The information desk staff just told me to go to the 2nd floor ILL office, did not ask anything. When I got to the ILL office the staff directed me to the web-based ILL form. They asked if I had ever used it; I told them no. They started me off and had me complete it myself. They did not ask me if I needed any help or told me anything about how long it may take. They did ask, however, if I was an undergrad or grad student and said I would be notified via e-mail for pick up of the item.

The client contacted the library 8 times for the article. Below is a series of comments:

Ordered document on 26th of November by web-based form...January 5 had not heard from ILL eventhough I had told them to notify me by e-mail when they received it...was told that they had received it on December 1, 1997 but they sent it to my department - I did not receive it so I never ended up getting it...asked them to re-order it...called them on January 12, the item had not been re-ordered. Blamed it on the ice storm and problems with CISTI... told me to come back in a few days...January 16 - not in yet and told me to call back, eventhough I wanted them to call me...January 19 still not there, had been ordered from CISTI...come back...ILL called January 20 at home to tell me that the delay is because of CISTI problems, I called again ILL January 27, not in yet...February 16, I called ILL, the document had come in on February 11 but no one had notified me. I complained about that and the person said it was due to their new system of notifying people for articles....UGHUGH!

Did not notify me twice as they said they would...staff did not seem to know what was going on...did not re-order the document when they said they would...seemed unorganized and continued to blame service on various problems.

Request #21 (filled)

Actual Performance: Requested material arrived on time.

Request #22 (filled)

Expectations: I feel that the quality of ILL library staff is only as good as the part-time staff. In my experience inferior quality service is all that is available on weekends. At the (library) I do not have access to ILL during regular ILL hours..the part-time staff are my only regular contact. Unfortunately, I have had negative experience and feel that the ILL staff training is inadequate at (the library) ...

Request #23 (filled)

Actual Performance: The service was excellent...When the librarian could not find the article in the OPAC, she immediately phoned a library she thought would have the required article. She was right and she suggested that I go to that library as it was only around the corner to retrieve it...her service was first rate. The client ordered the article anyway from the library through ILL and received it in 2 days.

Request #24 (filled)

Actual Performance: I went first to the circulation desk and I was referred to the Social Science reference desk. There I was told that I had to fill in a form that was located behind the desk. I had a choice of forms...the service was prompt.

Request #25 (filled)

Expectations: A method for accessing services outside of typical office hours (may be as simple as filling out a form to be processed the next day)...as many reciprocal agreements as possible ...quick communication of problems with, or delivery of ILL materials (be it a phone call, e-mail, or an information sheet on a bulletin board where you know to check for a change it status of your ILL).

Actual Performance: Overall I was very satisfied with their efforts on my behalf.

Request #26 (filled)

Expectations: ILL in, recall and due date system that is easy to access like computer view your own record and e-mail.

Actual Performance: The librarian lead me through making an ILL request using the computer form, so that I may be independent in future requests...She was thorough and friendly, but it was clear that the computer is the avenue to use not the ILL desk..The articles I have sent for in the past have all been sent promptly and without problems. I like the independence of the computer form.

Request #27 (filled)

Expectations: Insisting on deliveries within the time promised...Staff should be willing to inform and explain the delay to clients and should take the initiative to do so..staff should also check library holdings in the city (they have better facilities and skills for detecting books and articles that are not so obvious in the catalogues...

Actual Performance: The staff told me that I was the third person to ask for the article...I said that we must be doing the same assignment...She suggested that I get a copy from one of the others...she mentioned (the librarian actually gave out the names of the two other individuals who had just received the article), whom I acknowledged was a classmate; she also suggested that if I photocopied (the students) copy, which had already arrived, it would be faster, cheaper and less bureaucratic...although I am sure that she would have put in an order had I insisted, this suggested seemed very practical that I could think of no reason why I should not adopt it. The participant did get a copy of the article from one of the students and therefore completed the study. I was satisfied because the staff member clearly remembered that others had ordered the article (and could even remember their names) and made a suggestion that was practical and fast.

Request #28 (filled)

Expectations: I'm more concerned with getting the requested materials promptly than with politeness or appearance of the employees.

Actual Performance: Very polite...ready to help...there is a standardized request form that I filled out and she verified the information, including where did I find the citation...it was very simple and a real person called my house to tell me that my article had arrived...ILL is above and beyond the best run service in the library.

Request #29 (filled)

Actual Performance: The woman who helped my was very polite and wanting to be resourceful.. she mentioned that there were several students who had been in requesting this same articles and that we could save both time and money by pooling our resources...when I told her that I did not know anyone in the class, she was quite happy to send my request through.

Request #30 (filled)

Expectations: I believe the most important feature for an ILL to have is the ability and willingness to search for very obscure materials...

Actual Performance: ILL staff at (the library) carry out their work efficiently, precisely, quickly and in a manner in which instills confidence in the users...also having used ILL services at 4 different universities, I have found (this library) staff to be by far the best...also (the library) seems to have one of the few university libraries which is staffed adequately enough that waiting times are minimal, line-ups are rare, etc.

Request #31 (filled)

Expectations: If hours are restricted, the ability to request material over the phone.

Actual Performance: Very good service. The general information person was friendly and knowledgeable. The request forms for interlibrary loan was simple and clear, and clearly indicated the $5. charge per article.

Request #32 (filled)

Expectations: Renewal and information phone services would be particularly helpful with ILL material.

Actual Performance: They were friendly and helpful." Indicated that other services not as efficient or staff as friendly.

Request #33 (filled)

Expectations: Professionalism in service is paramount, professionalism in appearance is inconsequential if the ILL does what it has to.

Actual Performance: The woman at the information desk was very polite, recognized the journal and knew that the library did not have it...The woman at ILL was also very polite and recognized that someone not long ago asked for an article from the same journal. She asked if it was for a class and I said that it was suggested further reading for a class. She then explained how the library would contact me..."I was pleasantly surprised at how quickly the ILL got the article, how knowledgeable they were and how non-threatening the whole experience was.

Request #34 (filled)

Actual Performance: Reference librarian was pleasant and helpful - confirmed that the journal was not in the collection, told me it could be ILL...showed me where the forms were I took the forms for further processing...

Request #35 (filled)

Expectations: Quick service is often important. I realize this is often a matter outside the control of the ILL department, but local staffing and management effect the speed of service.

Actual Performance: I have always been pleased with ILL service, but I was very impressed (indeed, surprised) that the ILL contacted me to suggest I could obtain the essay from a different service, and save myself both time and money.

Request #36 (filled)

Expectations: I think it is really important for a library to have as many resources as possible on hand and make any that aren't immediately available - available through an interlibrary loan system with as little fuss and as prompt service as possible.

Actual Performance: I first went to the reference desk and they were most helpful...the only problem I ran into was that the ILL department wasn't well marked - hence the initial trip to the reference department. Once at the ILL office though, the lady immediately came over to assist me, outlined my options and gave me a very complete form to fill in...Overall, I left with a feeling of confidence that the requested article would arrive ...I didn't expect any nasty surprises.

Request #37 (filled)

Actual Performance: staff were very friendly. I asked at the general information desk about getting an article which wasn't kept at the University and I was directed to the document services office. The service at ILL office was very prompt.

Request #38 (filled)

Actual Performance: Quick, easy...in my personal experience from requesting other articles it that quickness in the service is strongly correlated with the place the library is trying to retrieve the requested article. It can take anywhere from a couple of days to a couple of months.

Request #39 (filled)

Expectations: Enough staff members available to help students during busy hours.

Actual Performance: I was told to go to the document delivery service after they could not find it in the catalogue...staff was polite and provided me with directions. (I filled out the form) and "will be contacted in 3 weeks...it would be nice to get the article faster, but I do not know where they had to go to get the paper.

Request #40 (filled)

Actual Performance: Very quick...asked at the help desk, then I was directed to the ILL and duplication office...filled out the form and then handed it in. I was asked quite aggressively where I obtained the reference and then if the prof had provided it as I had written it...I found the whole process efficient...I like being notified by e-mail.

Request #41 (not filled)

Actual Performance: I was asked if I needed help. When I explained I needed this article the attendant checked the catalogue...showed me an ILL form and the office where to submit it...staff were pleasant, courteous, occupied with own work...(participant indicated that he waited too long for the article (23 days) then filled out survey.

Request #42 (not filled)

Expectations: Should offer books in different languages...should post prices for ILL and over-due materials.

Actual Performance: The man at the reference desk was friendly, sincere and willing to help...lady at the ILL office was not friendly...I walked into said Hi., and started to say I need to order a journal article and before I finished asking she cut in and said "fill out that form", turned and continued her paperwork...after I completed the ILL form, I went back up to the desk and she told me to put it on 'that pile' and not to give it to her...then she told me to check and see if the article is in by keeping an eye on the library's bulletin board. I had to ask approximately how long the order would take; she said to check back in a week and suggested to ask at the circulation desk if I have any more questions...

When I returned to the library on February 27, I found out that the ILL unit did not even send my request in until the day before (Feb 26 and I brought it in on the 16th). When I asked why, the lady answered that there were so many requests that they separated the ones that wrote urgent or rush and sent those first...I still think it should not take 11 days to send out the regular requests. I did not request a rush order because I wanted to see their regular procedure and because there is a $15.00 minimum charge. I informed the lady that I needed the article, no later than the first week of March. Again, she checked the computer, showed me the request has been sent and assured me it would be in 7-10 days from the request date (February 26). I checked back March 2 and today, March 6. Again I was told to check back early next week.

ILL does give you an important service, but you have to plan ahead of time to ensure it comes in, or pay extra for the service. The reference help and circulation staff are very polite, kind and always willing to assist you.

Request #43 (not filled)

Expectations: Service provided at minimum or reasonable costs...possess an excellent source of materials on site.

Actual Performance: No one was in the ILL room...signs instructed how to fill out requests...later secretary entered and began working...I asked where the request went, she indicated the tray, I wished her a pleasant day and left...understaffed library does best they can..." (service indicated to be very poor).

Request #44 (not filled)

Actual Performance: People are friendly, but not as helpful as I had hoped...

Request #45 (filled)

Expectations: Notification of client that a request has been received and an estimate of arrival time...ability and willingness to arrange loan extensions..

Request #46 (filled)

Expectations: Speed of completion is of utmost importance to me - lessen the bureaucracy and get on with the work..

Actual Performance: The person who served me was helpful." The library provides ILL services in the time it promises ..."because they grossly over estimate." I am very satisfied with my experience because it was fast, efficient and hassle free...Unfortunately this is not always the case with our library.

Request #47 (filled)

Actual Performance: I checked the catalogue at the front desk...the person at the desk also checked the catalogue..I said I would like to see the article and was given an ILL form...I asked how long it might be until the article arrive and was told that depended upon how long it took them to ding the journal.

Request #48 (filled)

Actual Performance: The librarian recognized that neither (the library) had the requested periodical. She then informed me of a new service - an electronic collection of periodicals available off the Internet. She explained that some periodicals offered full text while others only abstracts and/or tables of contents. ...when we did not find the requested periodical in the electronic collection, she suggested that I submit an ILL form and informed me that the staff would contact me when the article arrived.

Request #49 (filled)

Actual Performance: I looked on the catalogue and found that the journal had been discontinued in 1993. There was no one at the reference desk but... I filled out the form...The librarian ignored me for 5-10 minutes...reviewed the form and asked if t his was the appropriate form...and put the form in the basket...Being ignored by the reference librarian was the worst part of the experience...I was not impressed that she was encouraging the faculty to participate on a strike when she should have been helping people...There was little personal interaction... I left the form in a box but if I hadn't seen the forms, I would have been discouraged.

Request #50 (filled)

Expectations: In an excellent library the client does not have to pay for any transactions, he/she must be informed accurately about the arrival of material.

Actual Performance: I didn't have to wait, the librarian was very friendly, showed me how to check the catalogue...I was given the option of filling out a paper request form or via the Internet, I was told that the latter works a little faster than the paper-form...I was not informed when the article arrived...I just checked my mailbox...if I wouldn't have checked my mailbox at the department, I wouldn't have known ...weak point in my opinion...staff made great efforts in explaining how an ILL request works and answered all questions friendly...

Request #51 (filled)

Actual Performance: I went to (the library)...I asked for help locating the journal article...The lady I spoke to was nice but told me to try another library..she said they would be better because they're a Science library... The lady was very pleasant and helped me fill out the forms...the article arrived 2 days after making the request which I thought was very helpful of them to get it so quickly.

Request #52 (filled)

Expectations: Even if they don't get the exact record of the article they needed, they are smart enough to figure it out instead of sending you back and forth to different databases..

Actual Performance: When I asked for this article, they asked me in which program I'm enrolled. I said, "slavic studies. She asked me so why do you need this article?...and looked at me puzzled and I said for my research...She asked "in Slavic studies??...if they get me the article it will be more important than the atmosphere itself...Still an unkind person...I felt as if she was doing me a favor,...it was okay service...but the personal approach of the employees was much worse than I expected...I feel satisfied since they found the article fast...but I'm dissatisfied with the way they approached me...

Request #53 (filled)

Expectations: Careful cataloguing of the books whether they are out or not and if there are missing books the librarians should help the clients locate it or do their best to locate it themselves...also quiet study space.

Actual Performance: Went to the reference desk and discovered first stop information that doesn't open until 10:00 am...employee was very nice...and suggested that I go to ILL desk...and she told me to fill out the form and said it would take 2-3 weeks...

Request #54 (not filled)

Expectations: An excellent academic library should have a good variety of resources, especially recent journals...Libraries should also ensure that there are adequate number of copy machines that are maintained.

Actual Performance: The staff were very helpful...the person at the front desk directed me to the appropriate location...I filled out a request form...and the staff person asked me if I would be willing to pay a charge... and that it would take at least a week. but that if I had not heard for 2-3 weeks I should call since the computer did not allow them to check back records." I was very impressed with the person that I dropped the request form to...but was disappointed the search was not filled.